

# MACH 2

Concorde  
magazine

Concorde in  
miniature  
*The Times Square  
model*

Concorde Watch  
*Duxford, Manchester,  
Brooklands and further afield*

Issue 28  
November 2020

# INTRODUCTION

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*In this last issue for 2020, we take a look at Concorde from an unusual angle. Our feature article is on the “mini-Concorde” that stood in Times Square, New York, for several years. This half-sized replica of British Airways Concorde G-BOAA was taken down in 2001, but has now been restored at the Empire State Aero-sciences Museum (ESAM). PR Director Tom Goodman describes the challenge of installing the model at the heart of one of the world’s busiest cities. John Panoski and Rich Bievenue of ESAM then take up the story, describing how they had to work out the process of reassembling the model. ESAM plans to display the model at the museum gate – much as Brooklands Museum has done with the Heathrow replica, G-CONC.*

*This year has been difficult for all of us. The British Concorde museums were open over the summer, but have closed again as of Thursday 5 November due to a second lockdown. We report on the visitor events and maintenance work at Duxford, Manchester and Brooklands, as well on the museums outside the UK.*

*To end, Mach 2 hopes that readers stay safe and well, and that we all get to enjoy a happy Christmas.*

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Editor: Katie John

Cover photo: Concorde G-BOAC, with nose lowered, at the Runway Visitor Park, Manchester.

Photo: Heritage Concorde

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# A MODEL CONCORDE

*Concorde's speed and glamour attracted admiration across the world – making the airliner an unparalleled marketing tool for the companies who worked with it. One example of Concorde's star power can be seen in the models that British Airways had made as advertisements in London and New York.*

Many Concorde fans know “G-CONC”, the model Concorde that used to stand at the entrance to London’s Heathrow Airport. This model was removed from its prime position but has been rescued and restored, and is now the gate guardian at Brooklands Museum in Surrey.

Fewer people, however, know that G-CONC had an American sister. For several years, a half-size model of British Airways Concorde G-BOAA had pride of place in Times Square, New York.

In the following pages, we hear from Tom Goodman of Goodman Media International, Inc. ([www.goodmanmedia.com](http://www.goodmanmedia.com)) – the PR firm

behind British Airways’ initiative to create and display the model. He describes how the project came about and recalls the challenging task of installing it in its eye-catching position. The story is then taken up by Rich Bievenue of the Empire State Aerosciences Museum (ESAM), who acquired the model; ESAM has just finished restoring it and will then place it on permanent display.

## **Flying the flag**

The half-size model of G-BOAA in position in Times Square. Installed by NY signage company Artkraft Strauss, it gave British Airways unparalleled brand visibility in one of the two most important cities for Concorde operations.

*Photo courtesy Artkraft Strauss Archive, [www.artkraft.com](http://www.artkraft.com)*



## A very unusual flight

Tom Goodman, President of Goodman Media International, Inc.

Goodman Media International, Inc. was the New York-based public relations firm that M&C Saatchi and British Airways retained for raising the Concorde model above Times Square. Tom Goodman was a core member of the team responsible for the project 24 years ago, and here he looks back at the “flight” of the model.

THE YEAR 1996 may seem like a long time ago for many people, but for the team responsible for placing a half-sized model of a British Airways Concorde atop a building in New York’s Times Square, it seems like yesterday.

The memories are vivid. The stress levels are remembered clearly, if not always fondly. The accomplishment is still revered, with awe.

Weighing in at 24,500 pounds, with a 42-foot wingspan and a length of 102 feet, this was the largest airplane model of its era. Its legend lives on to this day – and rightly so. After all, it was the biggest promotional stunt in BA’s long and distinguished history.

### A prime opportunity

The project was hatched in 1995, when an unusual prime outdoor advertising space became available in the heart of Times Square, on 42nd Street between Broadway and Seventh Avenue. That space was atop a brand new, two-story building that housed a restaurant, Hansen’s Times Square Brewery.

A huge wall behind the building would be an ideal space for BA to advertise, and there were countless options to consider, among them: a huge, conventional advertising billboard; over-sized video displays; or, maybe, something else, on the building’s roof. That “something else” became the “Concorde in Times Square” project.

### Advertising genius

British Airways already believed in the power of outdoor advertising; its



### Dramatic impact

British Airways was already using Concorde to stunning effect in its advertising campaigns, as can be seen in this poster, displayed at the Manhattan exit of the Queens–Midtown Tunnel in New York.

Photo: British Airways

permanent, massive billboard on the Manhattan-side exit of the Queens–Midtown Tunnel had become iconic, based on its location and its creativity. Drivers exiting the tunnel were welcomed over the years with dramatic, stunning BA advertisements. The most impactful of all was an enormous photo of a British Airways Concorde, positioned as if it were flying right at them, complemented by five numbers – 2:52:59, the record time that the plane had

*“the huge billboard became a part of New York culture”*

flown from New York to London on February 7, 1996.

David Charlton, then BA’s Vice President, Marketing, in New York, recalled that the huge billboard “be-

came a part of New York culture, in a way. It was impossible to miss for anyone arriving in New York at that midtown location. The impact was enormous; everyone loved it.”

Following the tremendous reception and accolades BA received for this breakthrough Concorde billboard at the Midtown Tunnel, BA’s advertising agency, M&C Saatchi, alerted Terrence Sweeney, BA’s US Advertising Director at the time, to the Times Square location. Don Morrison, the lead media manager at M&C Saatchi, along with Tim Carlisle, lead account manager, had the task of selling BA on the not-inexpensive Times Square opportunity. “I told the M&C team after the initial pitch that if we’re going to spend this kind of money, we have to do something spectacular; something that takes advantage of the rooftop location; something that

### Preparing for “take-off”

Tom Goodman poses in front of the Concorde model, seen here as it undergoes reconstruction in the streets of New York.

*Photo: Craig Blankenhorn*

benefits Times Square,” said Sweeney. “To their credit, they came back with the perfect solution.”

For British Airways, aside from the significant costs and logistical challenges of building a 102-foot replica of their iconic plane, the timing had to be right for the airline to make the commitment to go forward with the project.

“It was a great time to be in the airline business,” said Dale Moss, BA’s Executive Vice President, Sales & Marketing, at the time. “We had the most unique product flying to the two most important business cities (NY and London). The question was, ‘How can we distinguish ourselves further?’ The answer was the Times Square project, which would put the Concorde, the icon of our business, in the most visible place in New York. It moved our brand into a more ubiquitous position, almost immediately. It was not only a source of leadership for our brand; it was also a great source of pride for our employees.”

### Planning and building

In mid-1996, L&L Tooling, of Itasca, TX, just south of Dallas, built the Concorde model to an exact half-sized scale and with impeccable detail. L&L then disassembled it for the 1,600-mile trip from Dallas to New York on eight tractor trailer beds, and rebuilt it on the street, at one of the busiest intersections in the world – 42nd Street and

### Stopping the traffic

The half-size Concorde model, itself over 100 ft long, stopped two lanes of traffic and attracted thousands of on-lookers as it was prepared for mounting on top of the building. The team had to race against time to complete the work before Thanksgiving Day.

*Photo: Craig Blankenhorn*



Seventh Avenue. Artkraft Strauss, the legendary Times Square signage company, would be responsible for the engineering and the critical crane operations that were essential to the project.

As construction in Texas and site preparation in New York were underway, two additional concerns kept the BA team and its partners up at night – potential bad weather in New York in November, and the calendar itself. The plane had to be placed on top of the building ahead of a City of New York deadline, which mandated that all signage work in Times Square had to stop ahead of the busy Thanksgiving

holiday and the impending Thanksgiving Day Parade, which passed directly in front of the project site.

The BA team’s worst nightmare became a reality when the expected 24-hour operation to assemble and place the model atop the building dragged out for three days and nights, due to technical issues during the reassembly phase. Artkraft Strauss engineers insisted that steel inside the plane needed reinforcement and additional, unexpected work (mostly caused by the colder November weather in New York) was required for the hundreds of massive nuts and bolts that held the model plane together.





### A stunning achievement

Once assembled, the finished product, sitting on the street on Seventh Avenue at 42nd Street, was stunning – and distracting.

It caused a 3-day traffic jam as tens of thousands of pedestrians and people in taxis, cars, and delivery vehicles gawked and rubber-necked at the enormous jet plane taking up two lanes of one of the busiest streets in the world. Many thought that the plane was real. In fact, one British Airways Concorde pilot who visited the Times Square site said, not entirely joking, that all it needed were some engines to make it fly. BA took full advantage of the spectacle, generating scores of stories in print, radio, and TV during the production delay.

The final stage of the marathon project was the most nerve-wracking. It was after midnight, and it was raining. The newly reinforced 12-ton plane needed to be hoisted from its location on Seventh Avenue by an extremely large crane, swung over 42nd Street without hitting any nearby buildings, and placed precisely on three slender steel footers that extended from the roof of Hansen's. To the BA and M&C Saatchi team's great relief, the intri-

cate maneuver came off without a hitch, ahead of the city moratorium on sign work.

The iconic, one-of-a-kind outdoor display sat atop the Times Square building for several years, and even underwent a change in its look, when the plane's livery was updated to match the new look on all BA airplanes. Millions of people would eventually see the plane, either from the street; in photographs taken by tourists and New Yorkers alike; or on national and international television news, giving BA the worldwide exposure that it sought from the start.

### Removal and restoration

All good things come to an end, eventually. The iconic Concorde display came to an abrupt, if not unceremonious, ending four and a half years later in 2001 when the building below it had to be razed to make way for a new office tower. Everything that had been done to place the model on top of the building now had to be reversed, in sequence, and that was no easy task, either.

BA stored the disassembled Concorde model in its cargo hangar at JFK airport before turning it over to the Cradle of Aviation museum

### Changing with the times

The model received new livery at the same time as the actual Concorde in British Airways' fleet.

Photo: Brian Abbott, [brianabbott.net](http://brianabbott.net)

([www.cradleofaviation.org](http://www.cradleofaviation.org)), situated on Long Island, not far from Roosevelt Field, where Charles Lindbergh started his historic transatlantic flight.

The Cradle of Aviation was in possession of the plane for nearly 15 years and deserves enormous credit for saving the plane and caring for it, bringing the Concorde model back to its original, pristine condition. After undertaking interior metalwork and completing a fresh paint job, the museum faced logistical challenges of its own at the plane's intended location at its main entrance. The museum decided that it was time for the plane to change hands once again.

One option was to sell it and in May 2011, the renowned British auction house Bonhams put it up for auction; the asking price was \$100,000 to \$150,000, but there were no takers.

Luckily, an aviation buff and trustee at the Empire State Aero-sciences Museum ([www.esam.org](http://www.esam.org)) heard about the available Concorde model, and put into motion its transfer to the museum grounds, which are located at Schenectady County Airport (SCH). The airport is a short drive from Albany, NY, the state capital, and some 175 miles north of the Times Square site. The museum plans to reassemble and place the model on its grounds in the coming months or in spring 2021, at the latest.

I have little doubt that the time will come when many of us involved in the landmark project will come together in upstate New York to admire the Concorde model at its new home, and to reminisce about this incredible achievement. When that happens, the year 1996 – and this once-in-a-lifetime project – will not seem that long ago, after all.

## Landing a new home

*John Panoski – Acquisitions Director, Empire State Aerosciences Museum (ESAM)*

*Contributor: Rich Bievenue – Restoration Group Supervisor, ESAM*

*After the model was removed from Times Square, it faced an uncertain future until, in 2017, it was acquired by the Empire State Aerosciences Museum. John Panoski describes the painstaking process of restoring the model for display.*

**T**HE EMPIRE STATE Aerosciences Museum (ESAM) was started in 1984 at Schenectady County Airport. It was conceived of by four aircraft and flying enthusiasts from the area surrounding Schenectady, New York. Their goal was to stimulate interest in aviation, particularly as it related to New York State and the many early contributions it made to the aviation industry (see box, right).

In 1986, these founding members of the museum began making plans to book the Concorde at The Great Northeast Airshow, held at the Schenectady County Airport. Their planning resulted in the “Flight to Nowhere” with the Concorde the following year. Sold out in less than 24 hours, 100 tickets were sold at \$650 each to take a 100-minute flight in a British Airways Concorde out over the Atlantic and return. That’s where ESAM’s journey with the Concorde began.

### A Concorde on offer ...

Thirty years after that flight, sometime during the month of March 2017, I received a phone call from the director of the American Air Power Museum in Farmingdale, Long Island, New York, a museum about 25 miles east of the Cradle of Aviation Museum (see previous article) in Garden City, Long Island. In a conversation about ESAM’s collection, the director mentioned, “Have you heard about the Concorde that the Cradle wants to give away?”

I was immediately stunned! Knowing that at that point all existing Concorde had been given to air museums or municipalities, I had to inquire. It turns out he was talking about the ½ scale model Concorde that had once stood at arguably the most famous intersection in the world, Times Square in New York City.

I made a call to the director at the Cradle of Aviation, who informed me that yes it was true, the Concorde model was in fact up for grabs. Having been removed from its prominent display in Times Square in 2001, it had been donated to his museum, where it had remained in storage for many years. After unsuccessful attempts at getting the necessary permit to display it in front of the Cradle’s museum, the model had been offered to an air museum in southern New Jersey, but their fundraiser did not raise enough money to defray the costs of disassembly and transportation. He then offered

### Research at Schenectady

In the years immediately following WWII, Schenectady was a bustling manufacturing town, perhaps best known for the General Electric Company and the American Locomotive Company (ALCO). It was here at the Schenectady County Airport that General Electric (GE) built their Flight Test Center, which operated from 1946 to 1964. GE performed groundbreaking jet engine research and made many aviation advances in the very hangar that ESAM now calls home.



#### General Electric Test Center

Top: The General Electric hangar, now the main building in the Empire State Aerosciences Museum.

Above: Test aircraft included the first US jets.

Photos: ESAM



### Great Northeast Air Show, 1987

ESAM booked Concorde to participate in the airshow, held at Schenectady Airport. The British Airways Concorde that arrived was G-BOAA – whose half-sized namesake would be acquired by ESAM 30 years later.

Photo: *The Daily Gazette*, [dailygazette.com](http://dailygazette.com)



### Flight of fantasy

ESAM sold a full plane-load of 100 tickets for a “flight to nowhere” on Concorde, in which G-BOAA took the passengers on a round trip out over the Atlantic and back to Schenectady Airport.

Photo: *The Daily Gazette*

me a visit if ESAM was interested. I told him I would inquire with the ESAM executive committee first. After pitching the idea to the committee, it was agreed that more information would be necessary. I called the director back and we scheduled a visit.

### The Cradle of Aviation

Upon arriving at the Cradle of Aviation Museum ([cradleofaviation.org](http://cradleofaviation.org)), the former Mitchell Air Force Base, I was very impressed with the museum, which focuses on the history of aviation on Long Island including its historical events and manufacturers. So many of the exhibits and aircraft on display at ESAM have their roots in Long Island as well.

After introductions, I was guided to one of the former USAF hangars where several other aircraft, including an F-105, were under restoration. The Concorde was crowded in the back of the hangar, but it occupied a good third of it. It was massive, measuring 102 feet overall length, 42 feet wide, and weighing in at 24,000 pounds! There was no landing gear. My first thought was the logistics of the move, going through high-density traffic and commercial areas, and crossing bridges from Long Island to Queens. It would be a tall order

convincing the folks back at home that we could manage this major move. In the back of my mind I’m also thinking, how is our small group of volunteers from 185 miles away in Schenectady, NY going to pull this off?

After taking some photos and talking to some of the Cradle’s volunteers, I was assured that if we agreed to accept the Concorde they would provide full support from their side because they were anxious to clear space for an incoming project, an E-2 Hawkeye.

To my surprise, ESAM’s executive committee was extremely supportive of the idea. The thought of getting a model as large and as beautiful as this Concorde was very exciting, but at the same time a bit overwhelming. We immediately be-

gan picturing it on a pedestal placed in front of the museum, commanding the attention of everyone driving by. It wasn’t long before a letter of agreement was drafted and signed allowing for “as is, where is” and six months for removal.

### Preparing for the move

The first task was to disassemble this behemoth into pieces small enough to transport. In the early winter months of 2018, we began taking the airplane apart in segments as it was put together, starting with removal of the vertical stabilizer, then the outboard wing panels, the nose section, the tail section, and finally the center wing and fuselage. The center wing and fuselage was the most difficult and time-consuming, especially since the box section main

### Special delivery

Empire State Aerosciences Museum Trustee John Panoski inspects parts of the Concorde model’s outboard wing panels and vertical stabilizer as they arrive at the museum.

Photo: ESAM





to outer wing spars were welded together. Ultimately, it took five semi-trailer truck loads and 8 months to transport everything back up to Schenectady. That was the easy part!

### A daunting task

The thought of putting her back together seemed like a daunting task. There were no drawings, blueprints, or manuals to work from. Many years had passed since British Airways commissioned L&L Tooling to build it. We were able to dig up an old grainy video taken during the construction, but that didn't help much. There was no indication of where the lift points or center of gravity was on all these awkwardly shaped components. There were no experienced riggers in our small group of volunteers doing the restoration. No, this would be quite an undertaking for our crew and the limited resources of a small, not-for-profit museum.

The first and by far the most mundane step in the reconstruction was to prepare all the major sections for a fresh coat of paint. That included pressure washing, sanding, cosmetic repairs, and then more sanding. It turns out there is a heck of a lot of surface area on a ½ scale model Concorde! Once the prep work was done, the primer and paint went on relatively quick. The new paint really cleaned it up nice, invigorating us to take on the next challenge ... fiberglass repairs.

The Times Square model's skin was fabricated entirely from fiberglass. During the dismantling of the plane, several of the fiberglass panels were damaged and some were cut in order to provide access to the structural steel skeleton beneath. How to repair these fiberglass panels presented the biggest challenge of the restoration because none of the restoration crew had much experience in this regard. After much laboring over the thought of laying up new fiberglass panels to blend in perfectly with the existing skins, we



### Significant challenges

Top: Empire State Aerosciences Museum Restoration Group supervisor Rich Bievenue fashions supports for the wing attachments.

Above: Volunteers in the ESAM restoration group attach the left wing tip.  
Photos: ESAM

concluded it was far more expedient, yet still cosmetically acceptable, to clad the fiberglass with thin aluminum panels. Going that route kept the restoration on schedule, allowing the model to be ready for transport to the final staging ground by mid-October, 2020.

At present, ESAM is working through final negotiations to get the Concorde erected in front of the former GE Flight Test Center hangar, now home to ESAM's main gallery. The COVID-19 pandemic

has presented its share of challenges in raising the remaining funds and scheduling contractors. The model will be raised onto a steel base and set in an ascending position as it was in Times Square, pitched 15 degrees up with 23 degrees roll. The foundation has been poured. The steel base fabrication is in process. If the stars line up, 2020 will find the Times Square model Concorde finally in its new resting place at the Empire State Aerosciences Museum in Schenectady, NY!

**Author's note:**

The Empire State Aerosciences Museum wishes to thank all the contractors, suppliers, donors (public and private), and of course the volunteers that made this undertaking possible. Costs were significant, including transportation, engineering, construction, equipment rentals, and cranes. We received many generous donations of time, money, and equipment. We would like to acknowledge the support provided by the following: Schenectady Steel Company, Inc., MRH Engineering PC, Lucia Specialized Hauling, Inc., BBL Construction, Rapid Cure Technologies, and the Town of Glenville, NY.

**Further information**

To find out more about the exhibits and activities at the Empire State Aerosciences Museum, please visit the website: [www.esam.org](http://www.esam.org)

ESAM has set up a GoFundMe account for their model Concorde: <https://www.gofundme.com/f/help-bring-the-sst-concorde-to-esam>

Visitors to ESAM's website can also sponsor one of the other aircraft in the Air Park. For details, see: <https://www.esam.org/adopt-an-airplane>



**Reassembly completed**

Top: The reassembled model. The team have also renovated and repainted it. Above: The volunteers from ESAM pose in the Air Park with the reassembled model. In the background are some of ESAM's other exhibits, including an F-5E, MiG-21, MiG-17, MiG15, F-105G, A-4, A-10, F-4, F-101B, F-84F, RA-5C, Supermarine Scimitar, and a F3D. *Photos: ESAM*



**Plan for display**

An artist's impression of the model Concorde on display outside the entrance of the museum. *Image: ESAM*



# CONCORDE WATCH

## Concorde G-AXDN

British pre-production aircraft

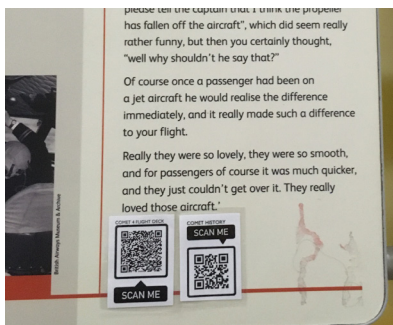
**Location:** Imperial War Museum, Duxford, UK

**Reporter:** Katie John

**Date:** 25 October 2020

The ongoing restrictions to help us cope with COVID-19 are still affecting a wide range of businesses and public places, including museums. At the Imperial War Museum, Duxford, the staff and guides have been devising new ways to help people enjoy the exhibits safely. Chrissie Eaves-Walton of Duxford Aviation Society (DAS) invited me to visit and find out about the new one-to-one technical tour that DAS have planned for Concorde.

Chrissie drew my attention to the new information point at the entrance of the AirSpace hangar, on which events and attractions were posted. Inside the hangar, she pointed out the QR codes on various display stands, which give links to information about the aircraft as well as 360° views of the interior. For Concorde there are also links to two YouTube videos, in addition to the Concorde app (see p.12), which provides detailed information on the aircraft and its systems.



### Additional information

Some of the display stands now have QR codes allowing access to further information about the aircraft.

*Photo: Katie John*

The main change I noticed since my last visit was the installation of hand sanitizer stations by the aircraft that admitted visitors. Chrissie said that the museum is taking extra care to control visitor numbers. Concorde was still open to visitors, but entry was timed at 5-minute intervals to ensure social distancing.

### New tech tour

DAS is creating special one-to-one tech tours of Concorde, for enthusiasts and others keen to gain a more in-depth understanding of the aircraft. They are also planning to create tours for apprentices in the aviation industry, including for apprentices at Marshall Aerospace and Defence Group (see box), based nearby at Cambridge airport.

Like the group tech tours, these individual tours will take place in three stages, starting with a look at the exterior from the museum's mezzanine level, then a walk around the undercarriage and engines, and finishing with a tour of the interior. These tours will also feature a visit to the flight deck. The tours are projected to take 40–45 minutes, and will take place after 3.00pm, the time when Concorde is usually closed to visitors.

### Nose to tail investigation

DAS had asked me to come and try out their new one-to-one tour. My guide, Bill Darroch, was a former airline pilot himself; he had flown Boeing airliners for 33 years, ending with four years on the Boeing 787.

Starting under G-AXDN's nose, Bill gave a wide selection of

## Marshall and Concorde

The Marshall Group, first established in 1909, would play an important part in Concorde's development by creating the aircraft's famous droop nose and retractable visor. During the 1960s, a team led by Sir Norman Harry designed and built the nose and visor assemblies, delivering the first ones in 1967. Marshall Aerospace and Defence Group ([marshalladg.com](http://marshalladg.com)) still carries out manufacturing and modification work for both military and civil aircraft today.



**G-AXDN: nose and visor**

*Photo: Katie John*

fascinating facts about Concorde in general, including the reason behind the double-delta shape of the wings; the fact that the engines supply 82% of Concorde's thrust in subsonic cruise but only 8% of the thrust in supersonic cruise, with most of the thrust being generated by the air intake; and the fact that Concorde's special white paint was designed to stretch with the expansion of the



### Thrust reversers

Bill pointed out the lattice-like thrust reversers at the rear of the engines; these are very different from the “buckets” that were fitted on the production aircraft.

*Photo: Katie John*

airframe during flight, and to absorb and redirect heat from the metal. He also gave many instances of ways in which this Concorde, G-AXDN (101), differed from the later production models. Most notably, the black panels painted on the underside of the wing were used during the icing trials, to help observers monitoring from inside the aircraft to identify and measure ice build-up under the wing. Another point of interest was that when G-AXDN attained the record speed of Mach 2.23, the nose reached 156°C – as compared to the maximum temperature of 127°C for production aircraft at Mach 2. In addition, G-AXDN has features not seen on the production aircraft, including a brake parachute and an escape ladder!

There were also historical snippets, such as the fact that the intakes were designed in France but the computers that controlled them were designed in the UK. Bill said that DAS planned to compile all of

### View from the pilot's seat

The highlight of the tour was a chance to visit the flight deck and sit in one of the pilots' seats. Bill and Katie both wore face coverings and wiped down the surfaces after the visit, as precautions against COVID-19.

*Photo: Katie John*



### Dispelling a myth

Bill corrected a common misunderstanding about the tyres – the fibres are not “worn areas” but are in fact wicks to discharge static electricity from friction with the ground.

*Photo: Katie John*

this information into a booklet; I suggested adding it to the information that could be accessible via the QR reader.

For the section on the flight deck, both Bill and I wore face protection – I had a mask, while Bill wore a face shield. Bill pointed out the various groups of instruments, from the more familiar (standby horizon, air speed indicator) to the Concorde-specific items such as the fuel transfer instruments. (The system of transferring fuel between

tanks to keep the aircraft balanced during flight was pioneered by Concorde but later adopted for other Airbus aircraft.)

Overall, I very much enjoyed my personal encounter with G-AXDN. Bill gave a wealth of really granular detail, which I think would be fascinating to both aviation enthusiasts and interested lay people. In particular, the chance to see the flight deck instruments up close brought the aircraft to life in a way that even the best computer views can't always achieve. I did know some of the information already, having been around Concorde for over 15 years now, but I found it fascinating to have a fresh insight into the aircraft from a former professional pilot. The guides are still building on the information that they plan to offer, but I think this tour would be well worth it for any Concorde fan.

### A virtual visit

To enjoy a virtual tour of Concorde G-AXDN, download the Concorde app on the DAS website: [www.duxfordaviationsociety.org](http://www.duxfordaviationsociety.org)



## Concorde G-BOAC

## British production aircraft

**Location:** Runway Visitor Park, Manchester, UK

**Reporter:** Graham Cahill **Date:** 10 October 2020

On 8 October Heritage Concorde visited G-BOAC at Manchester to continue the work on the aircraft. The team was Graham Cahill and James Cullingham (James travelled up from Bristol for the day). John Dunlevy decided not to attend due to the current Covid-19 risk on public transport. Work has been greatly reduced this year due to Covid, but we plan to do what we can when we can.

Work planned and completed for the day was as follows.

**1. Audit of spare parts** at Manchester and organizing the spares into some sort of useable order, storing them safely for future use. This is extremely important work for the future. Spare parts are pocketed at various locations; we are completing an inventory of all parts available, so in the future if any location needs a spare we know where it is and how many we have. It is inevitable that things get broken on the displays, so speedy replacement is paramount for a great display.

**2. Minor alteration of the taxi turn lights** to allow use for longer periods. These were converted to LEDs earlier this year; however, we have found that a relocation of the LED drivers which supply the correct voltage to the units would give better future access, and they are less likely to fail where more cool air is available.

### Ground services breakers box

Systems attached to this only activate when the aircraft is connected to ground power (mostly lighting including fuel panel, boarding lights and ground inspection lights).

*Photo: Heritage Concorde*



**3. Repair of some non-functioning “No Smoking”/“Fasten Seatbelt” signs.** At Manchester we still have filament lights in the passenger signs (unlike at Filton), but some filaments have failed. We have also found that when the cabins were converted for display many of the ground leads for the passenger signs were disconnected as cabin lighting was installed, so we are repairing this as we go. For the future the plan is to install correct colour LED replacements which will give longer life for the display; this has successfully been completed at Filton

### Cabin lighting

Heritage Concorde have re-activated the “No Smoking” and “Fasten Seat Belt” signs, and the reading lights. The team plan to convert these to low-energy LEDs at a later date.

*Photo: Heritage Concorde*

already, and it means the lights can be left on for long periods without needing maintenance.

### 4. We have reinstated use of most of the forward cabin reading lights.

This is an ongoing project to improve the cabin lighting inside the aircraft; again, most of the ground leads are disconnected as when the aircraft was decommissioned the 115v ballast were removed for cabin lighting. Most of the work is completed for the reading lights; they look great and will give a better visitor experience at Manchester.

**5. Minor works on stewards’ panel** associated with the reading lights; we fitted a power supply to the reading light supply behind this panel.

**6. Inspection of the nose hydraulics;** this is a standard job that we complete every 6 months minimum on all the active noses just to check that all is ok.



7. **Inspection and planning of ground service lighting** with a view to reinstate. This is for a future project. We plan to look at reinstating the tiny bulkhead lights that are installed in most of the service bays and on the landing gear; you may have seen them when you visited. If successful it will give visitors a better view of what's inside the removed panels and it will certainly make the aircraft look more alive. If the project is successful it will probably be duplicated in other locations, so watch out for an update.

In all a fantastic day was had by both Graham and James; thanks to the great team at Manchester for the usual excellent support as well.

## Fundraising appeal

We are looking to purchase a small 115v power supply for some exciting future projects (this will cost over £1000). All of our projects cost money. All donations will 100% go towards the Concorde; no money is used for anything other than parts for the projects.

If you want to help us, please visit this link:

<https://www.paypal.com/paypalme/Heritageconcorde>

Or visit our ebay store:

<https://www.ebay.co.uk/usr/hericonc-0>

## Runway Visitor Park: Concorde news

*John Hepple, tour guide, Runway Visitor Park*

After Lockdown 1 the RVP re-opened on 1 June for viewing the much-reduced numbers of aircraft movements. Tours of Concorde restarted in July with slightly reduced capacity due to social distancing requirements. A briefing area was created in the hangar with spaced-out seats, numbered to correspond to the seats used on board AC. There has been much good feedback about the set-up, which works nicely (chairs and aircraft touch points are cleaned after every tour).

At the start of 2020 the VIP Champagne tour had been replaced by the Platinum Tours – a similar set-up, but with the added excitement of a nose move with champagne in hand. Many of these have run over the summer as the RVP have caught up with the backlog from postponed sessions between March and July. The nose move still gets everyone smiling.

Although not Concorde-related, a DC10 short tour has been created and run successfully over the summer. Nimrod tours are more difficult to run socially distanced, so the RVP are just honouring any outstanding bookings/vouchers. Over the summer the Junior Flight Academy was run under Alpha Charlie rather than



on the DC10; strangely, the parents preferred to be there! It will return to the DC10 once lockdown 2 ends.

### Concorde Celebration

Saturday 31 October marked the 17th anniversary of AC's arrival at Manchester. Whilst we could not have a formal event due to COVID-19, the RVP pushed the date on social media, had a special car parking offer and laid on a "Nosey" tour – an hour-long Classic Tour with added nose move. On the Saturday

### Taxi turn lights activated

*Photo source unknown*

the visitors had a great time and a lad called Charlie had an excellent birthday. One aircraft-mad youngster asked some brilliant questions, really challenging the guides. In the words of one guide, "Guiding is fun on days like that!"

For more information on the RVP and Concorde, see the website: [runwayvisitorpark.co.uk](http://runwayvisitorpark.co.uk)

## Concorde G-BBDG

### British pre-production aircraft

**Location:** Brooklands Museum, Weybridge, UK

**Reporter:** James Cullingham

**Date:** October–November 2020

Work continued on G-BBDG through the summer and early autumn; the last jobs were completed the day before the UK's second lockdown came into effect.

### 6–7 October

The team of ex-BA Concorde engineers worked on various parts of the aircraft doing inspections, corrosion repair, etc. The work completed this week involved:

- Starting to replace and seal further panels on the nose and tail fin.
- Anti-bird spikes have been fitted and sealed to the VOR/LOC antennas, which will be re-fitted to the aircraft over the coming weeks.

### 4 November

There has been slow but steady progress over the last few weeks – which may or may not continue over the coming weeks, depending on the lockdown rules and the weather!

- All rudder hinge cover panels are back on and sealed.
- Fin upper-most leading edge is back on and sealed.
- VOR/LOC antennas are re-attached and sealed.
- Bird spikes have been attached along the top of the fin.
- Nose pitot tubes have been re-attached and sealed.
- Lower rudder corrosion cover plates have been riveted on, sealed and undercoated.
- Due to the museum closing, all the doors bar one have been temporarily sealed and the dehumidifiers set up for continuous drain.

### Further plans

The next jobs are to replace more of the PFCU covers; manufacture a new upper rudder restraint so we can remove the joint plate between



### Internal inspection, 6–7 October 2020

A view inside the trailing edge of the fuselage fairing (between the elevons and the fuselage), with some of the remaining flight test cabling visible.

*Photo: James Cullingham*



### Latest progress, 4 November 2020

Much of the work has now been done on the tail fin. Once the team regains access to the museum, they will be able to work on the nose and visor.

*Photo: James Cullingham*

the rudders; give the blue segment the first coat; remove the lowermost fin leading edge; treat corrosion; and undercoat and then seal and refit the mid and lower leading edges, followed by an undercoat.

We will also prepare the visor for an undercoat, give the nose the final top coat, and add final red top coats.

A full visual record of the work done on G-BBDG can be found on James Cullingham's online photo gallery, [concorde-photos.co.uk](http://concorde-photos.co.uk)

For the latest news on Brooklands Museum and Concorde G-BBDG, see: <https://www.brooklandsmuseum.com/concorde>

## Concorde beyond the UK

*After a summer of carefully managed tours, Concorde museums in the UK have now closed again as of Thursday 5 November. The museums in France and Germany are also in lockdown. The museums in the United States remain open, however, and they are taking extra precautions to cope with the latest surge in COVID-19.*

### France

France is once more in lockdown for at least the next month.

- **The Musée de l'Air et de l'Espace**, which houses the French prototype Concorde 001 as well as Air France Concorde F-BTSD, is constructing a touch-screen to stand in front of Sierra Delta in the Concorde hall. The screen will enable viewers to explore F-BTSD in 360° and 3D. They are currently raising funds to achieve this goal and would welcome any donations. To learn more about the project, please visit the project web page:

<https://dartagnans.fr/en/projects/le-concorde-au-bout-de-vos-doigts/campaign>

- **Aeroscopia** in Toulouse, site of development Concorde F-BTSB and Air France's F-BVFC, is closed until further notice. For details, see:

<http://www.musee-aeroscopia.fr/en/actualites>

### Germany

Germany is in partial lockdown during November.

- **The Technik Museum Sinsheim**, home of Concorde F-BVFB, is closed until 1 December:

<https://sinsheim.technik-museum.de/en/>

### United States

The museums in the USA are currently open, although they are using social distancing, protective equipment and careful hand sanitisation to ensure safety.

- **The Intrepid Sea, Air, and Space museum** in New York, home of Concorde G-BOAD, is allowing full access to the aircraft on the flight and hangar decks, but they are controlling visitor numbers with timed tickets. The museum has created a new "Concorde Experience", as well as running daily 1-hour tours of Alpha Delta:

<https://www.intrepidmuseum.org/The-Intrepid-Experience/Exhibits/Concorde.aspx>

- **The Museum of Flight** in Seattle, which houses Concorde G-BOAG, is fully open, but in addition to the usual anti-COVID measures, visitors are asked to undergo a brief health screening before admission.



### Concorde F-BTSD at your fingertips

An impression of the opening screen for the planned display. The museum has already created the first scans, with the support of the Association des Amis du Musée de l'Air. Photo courtesy of the Musée de l'Air et de l'Espace

One further point to watch for is that Alpha Golf may be closed to visitors in rainy weather, due to ongoing maintenance on the air system, so visitors are asked to check ahead of their visit to ensure that the aircraft will be open:

<https://www.museumofflight.org/aircraft/concorde>

- **The Udvar-Hazy Center** in Chantilly, VA, home of Air France Concorde F-BVFA, is open (although the main National Air and Space Museum in Washington, DC is closed). The museum is controlling visitor numbers and distancing by means of free timed-entry passes.

[https://airandspace.si.edu/collection-objects/concorde-fox-alpha-air-france/nasm\\_A20030139000](https://airandspace.si.edu/collection-objects/concorde-fox-alpha-air-france/nasm_A20030139000)

### Barbados

The island is still admitting tourists, but they are asking visitors to take a COVID-19 PCR test on or prior to arrival, and they are quarantining people until they are proved to have a negative result.

- **The Concorde Experience** featuring G-BOAE is still closed, but there are plans to re-open it at some point. This page from Barbados Tourism gives more information about Alpha Echo and the exhibition:

<https://barbados.org/concorde.htm>