

Concorde

The Inside Story

BRIAN TRUBSHAW

Foreword by Captain Jock Lowe



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Brian Trubshaw has asserted the moral right to be identified as the author of this work.

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Concorde turn around at Melbourne during route proving, August 1975. (BAe Systems)

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High flight: with a dramatic cloudscape spread beneath them, four Concorde's are captured by the photographer's lens in loose formation over southern England. (BAe Systems)

FOREWORD

CAPTAIN JOCK LOWE, PH.D., B.SC. (HONS), FRAES

The opportunity to make a significant technological advance happens only rarely. It is important that when it does occur, the chance is not missed. Yet so often the difference between success and failure lies in the hands of a small number of men. Concorde was and still is an example.

In the case of Concorde there is no doubt, regardless of where the topic is debated, that Brian Trubshaw was one of these special people. His drive, energy and enthusiasm, coupled with his ability to lead and organise were first class. To be present at one of his post-flight debriefing sessions, to see the respect awarded him by the assembled pilots, engineers and scientists, was a perfect example of these attributes being recognised by all.

Brian has been working with Concorde for more than thirty years. His knowledge of the Concorde project is second to none. I am delighted that he can put some of his memories into this book so that we can all share the highs and lows which have always accompanied this beautiful aircraft. The honour I feel to have to write this foreword will, I am sure, be matched by your enjoyment as you read it.



PROLOGUE

Concorde 002 was parked on the southern turning circle of the NE/SW runway at Filton, quite near the threshold of Runway 28, which had to be used because of the crash barrier at the western end. At Z minus 2 hours the detailed operational plan was cranked into action. This included closing the A38 Gloucester Road that runs past the boundary of Filton airfield prior to take-off, and the closure of RAF Fairford to all other air traffic. Crew safety equipment to be worn was specified in the following order: protective helmets, low-altitude equipment and Air Ventilated Suit (AVS) together with parachute.

The crew for 002 consisted of: Brian Trubshaw – Captain; John Cochrane – Co-pilot; Brian Watts – Flight Engineer; John Allan – Senior Flight Test Engineer; Mike Adley – Flight Test Observer; and Peter Holding – Flight Test Observer.

002 takes off on her maiden flight from Filton to Fairford on 9 April 1969. Fairford was chosen as the test airfield for Concorde because the runway at Filton was not long enough for prototype test flying. (BAe Systems)





We were driven out to 002 from the Flight Operations building in order to commence the very lengthy and protracted pre-flight checklist, which lasted for more than one hour before engine start was requested. A few more checks followed engine start before John Cochrane requested taxi clearance, it being our normal practice for the co-pilot to operate the radio communication with Air Traffic Control (ATC). The short taxi to Runway 28 and the pre-take-off checks were now complete. John Cochrane then requested take-off clearance, which was given by Roy Julian, SATCO, Filton, who finished with the words ‘. . . and good luck gentlemen’.

I then selected full thrust against the wheel brakes, which blasted the hell out of the A38 and selected reheat ‘on’. No. 3 reheat did not light the first time, but a second attempt was successful. With that I released the brakes and we were off down the runway with an extremely rapid acceleration. The chase plane, a Canberra flown by Johnnie Walker, formed on the right side as 002 rolled down the runway. In case of any problems, a HS125 was also on standby as a back-up chase.

100 knots (k) came, no flag and on we went, rotating at 140k to a pitch attitude of about 15°. Lift off occurred at about 180k and was

The author with John Cochrane, the co-pilot, on the flightdeck of 002 at Fairford in 1969. (BAe Systems)



Flight test observers John Allan, Mike Addley and Peter Holding seated at the observers' panel in Concorde 002 wearing partial pressure suits and helmets. (BAe Systems)

increased to 220k by 1,000ft where a gentle right-hand turn towards Fairford was initiated. The landing gear and nose/visor was left down for the whole flight.

After the drama of take-off there was little conversation among the crew, so I thought that I had better say a few words to the effect that everything felt fine and that we were doing very well. On this maiden flight I carried out general handling checks and assessed the use of auto-throttle and engine responses en route, up to 280k and a height of 8,000ft.

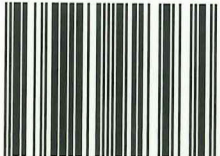
Brize Norton radar positioned 002 for a final approach of 10nm flown at 170k, but on turning on to finals both radio altimeters failed. This was decidedly unfriendly as their use was (and is) standard procedure to assist in judging the last 100 feet or so before touchdown. In the case of Concorde it is especially crucial because the pilot's line of sight is some 38 feet above the ground when the main wheels touch due to the aircraft's nose-high attitude. The first landing, therefore, had to be eye-balled resulting in an arrival, which was not too bad, about ½ a second early. Immediately after touchdown I selected reverse thrust and the braking parachute was streamed. A short taxi to the running base in the south-west corner of Fairford airfield, where a VIP reception party awaited, terminated this epic flight of 22 minutes flight time and 43 minutes block time.

The whole crew were thrilled and felt a great sense of achievement, although they realised this was only the beginning of a long journey. The rest of the day was spent de-briefing at Fairford, before flying back to Filton to consume some of 002's birthday cake, which had been made specially by the famous and brave lady aviator, the late Sheila Scott, and to receive gifts from the other directors. The evening was spent in the 'local' with all those who had put 002 together and cleared her for flight.

Opposite: John Cochrane, Brian Watts and the author emerge from 002 after its first flight from Filton to Fairford, 9 April 1969. (BAe Systems)



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