‘Don’t tell the passengers, but…’

*Captain **Tim Orchard** made the fastest-ever Concorde crossing of the Atlantic, and here’s how it was done*

To run a parallel career whilst driving big aeroplanes around the world is not unusual for airline pilots. Often such second careers are in the world of IT or in the property market or the building trade. Some airline pilots also fly small aeroplanes or helicopters while not on duty for their main employer. Tim Orchard seems to have managed to keep a number of additional strings tight on his bow while still flying for British Airways; all of them being strings of aviation.

Tim might be known to some general aviation pilots as a balloonist who flies a pair of Concorde passenger seats in lieu of the basket under his hot air balloon. He might be recalled by some as an instructor-teacher or as a Flight Instructor Examiner. He might be known as a landlord or an employer, too, as he has been the boss at Wycombe Air Park for more than a dozen years. And if you’ve been on an AOPA Flying Instructor Refresher Course you may remember him for his dry humour and in-depth knowledge.

Despite being brought into the airline environment as a Trident co-pilot, Tim spent nine glorious years flying in command of the British Airways executive aeroplane. This was used for moving the Chairman and Chief Executive (Lords King and Marshall) around Europe in addition to being used for other communications and logistics matters to general airline benefit. Sadly, when that aeroplane was sold under cost-cutting measures, he says with a wry smile, he ‘had’ to go and train as a Concorde co-pilot.

Top left: Tim in the left seat of the record-breaking aircraft, G-BOAD
Left: Concorde pilots would brag in the pub about breaking three hours, but you could call their bluff...

Tim moved to the 777 as a Captain and then, unusually for Concorde pilots, re-mustered onto the Concorde in the left hand seat. The demise of supersonic flying saw Tim return to a 777 command, where he remains to date thanks to the European age-ist laws preventing Big Airways from kicking out their pilots at the much too young retirement age of fifty-five. Tim’s haul of speed records includes becoming the fastest cyclist in the history of the universe, achieved by riding his daughter’s bicycle down the aisle of Concorde from tail to nose in flight, achieving 1,510 mph. Another is making the fastest-ever Atlantic crossing in a passenger aeroplane. The record took a good deal of meticulous planning, as he recalls:

“I had had thoughts of a record attempt for some long while. I had seen four or five sets of seasons pass and had heard those with vast experience on the aeroplane pontificate that they had broken the three-hour eastbound barrier with ease. I sneaked a look at some BA-held data which belied the claim that this time was ‘often’ beaten. Indeed, one or two chaps had had their bluff called over a New York beer or two. I gleaned sufficient information to know that you had to have quite a number of ducks in line before you could break three hours. Further, you would have to be very canny to come in five minutes or more off that three hour slot. It was also clear that February was the month for such a feat, both from a ‘low-level’ wind velocity and from the upper air temperature points of view. Meteorology hadn’t been the easiest of ground-school subjects for my ATPL exams in 1973 but suddenly the word ‘jetstream’ began to

seem important. Also, it was necessary that various ducks on the ground needed to be aligned to ensure that any attempt might not be immediately scuppered by the unknowing or unwitting action of others.

"I put in place a number of thought processes to help things to happen smoothly should I be in a position to suggest a record attempt, and for us not to suffer any annoying delays en-route. It was starkly obvious to me that any February day which demonstrated that the westbound Concorde flight was to take a deal longer than the usual 3hr 20mins would mean that the conditions in the atmosphere were ripe for a fast eastbound crossing soon after. Our westbound flight plan on 6th February 1996 showed much longer than usual. I happily found, too, that the eastbound flight we were passing that day had a planned time of 3hr 8mins. That meant that if we attempted it, we would have to work very hard, but it might be possible!

General aviation pilots may not be aware that at Concorde's cruising altitudes, 58,000 to 60,000 feet, there's a fairly constant westerly wind of ten to fifteen knots. Moreover, the aircraft always flew flat-out at around 435kt indicated, or Mach 2.0, so there was no time to be made up by pouring on power. There's a benefit to be gained from going through the jetstream on climb and descent, but it is small. Time could be saved only by eliminating all ATC delays, accelerating to Mach 2 at the earliest opportunity and decelerating at the latest.

I had enough friends and colleagues in the various Air Traffic Control units who could be called upon to offer unofficial help on 'the day'. It was my plan to align these favours by telephone now that I knew there was a record chance. I was merely the co-pilot, of course, and not able simply to decide that we should do this. The Senior Flight Engineer, the late Rick Eades, was extremely competent and known to be 'game' for most off-the-wall ideas. Captain Les Scott was, in February 1996, comparatively new to the aeroplane. It was a measure of his expertise and experience that he allowed me to persuade him to even discuss making a record attempt, particularly as it was a normal passenger revenue service.

During the trip outbound, we pooled knowledge and resources as to some of the decisions which needed to be dealt with pre-flight and during the trip. All three of us immediately stated that safety would not be compromised in any way. We also agreed that we would not tell the passengers or our cabin crew until it was all over. Better not to have failed them, if we didn't break the record! There would be many reasons to cancel the

attempt and return to absolutely normal operational routine, such was the regularity of minor unserviceabilities on the aeroplane as well as a myriad of external and unpredictable factors.

On the ground in New York I spent some time organising those ducks into the correct sequence ATC-wise to help us leave New York and arrive at Heathrow expeditiously. I can still picture the telephone bill with horror. Next morning we prepared for a normal trip in G-BOAD (now in the Intrepid floating aviation museum on the Hudson River in New York) with up to 100 unsuspecting passengers and five unaware cabin crew, for a more-than-usually adrenaline-charged trip for us three flight crew.

The departure from Kennedy was accompanied initially by a very relaxed ATC clearance. However, they did ask us to maintain only 5,000 feet immediately after take-off; that could ruin the whole game. Much persuasion later, we were cleared on a more than usually direct route to the beginning of Concorde's 'Oceanic Track' at 50 degrees West. At least the calls to JKF ATC Supervisor and to Tracom's Air Traffic Centre seemed to have worked. With our weather radar looking at the coast-line and our DME picking up Nantucket, we felt sure we had given the minimum 20nm space from the local populace. Surely, if those living on Nantucket Island complained of a sonic boom this afternoon there must be a US Navy carrier with boom-laying aeroplanes around on whom it might be blamed?

Left: the fast crew – Captain Les Scott, co-pilot Tim Orchard, Flight Engineer Rick Eades Below: Before and after – Tim Orchard grew up to engineer the fastest-ever Concorde Atlantic crossing

Our trans-Atlantic crossing was on the normal supersonic route (Sierra November) and we used standard operating procedures. When we came within range of the Oceanic Controllers who are based in Ireland (Shanwick), we were treated to a slightly more direct routing across Irish airspace and the South West Approaches.

Les Scott was bold enough to allow us to stay high and fast as long as possible. By this, I don't mean a dreaded 'rushed approach', but merely that the deceleration from Mach 2 and the arrival at subsonic speeds and altitudes were made somewhat more suitable to a record attempt than to a normal revenue service. The good old Air France Concorde always made a sonic boom in South West UK at that time of night, in any case. We had a perfect alibi if it was required!

We wanted to maximise the energy and elected to employ reverse thrust in the air to

The record-breaking Concorde G-BOAD in its final resting place, on a barge next to the Intrepid air and space museum, aboard a redundant aircraft carrier in the Hudson River in midtown Manhattan. The flight deck looks outdated by modern standards; original plans to include a sixties-vintage moving map display in the centre of the panel were shelved, partly because it had limited value on long overwater legs. The flight engineer's panel shows the incumbent's hat jammed between the panel and the bulwark. Because the aircraft expanded by some eight inches in flight, enough space would appear to insert a hand, or a hat. When Concorde cooled, the hat (or the hand) would be trapped until it flew at Mach 2 and the gap opened enough to remove it. Sadly, the Flight Engineer's cap aboard AD is never likely to be removed.

descend and reduce speed to make the easterly landing at Heathrow. Having flown the HS Trident airliner in a previous life, I was pleased to find that the second airliner in my BA career also allowed the pilots to use reverse thrust whilst airborne. Messrs. Boeing and Airbus have never done this; I guess they value their wing-mounted engines and wings rather highly. It was somewhat agonising, therefore, having planned to reduce energy with the use of reverse thrust, to find that only one engine would play ball. We tried and tried, but one steadfastly refused. Only months later was it pointed-out that there was a (secret-to-pilots) 'speed-switch' which had prevented the reverser working. Such was our desire to maintain high speed, we had unknowingly tested the accuracy of the safety-related speed switch… it had been a little earnest in its operation.

The good news was that our record attempt landing at Heathrow was due to be on the same tarmac strip as was in use by all other landing aeroplanes at Heathrow that evening. The less good news was that they were landing towards the west, whilst we had to land towards the east to break the record. Our friends in Heathrow Air Traffic Control again came into play, allowing us to land in the opposite direction to the general flow of traffic. It was clear by the continued questions from Heathrow Approach and from Heathrow Tower that they would have preferred us to fit in with the other aeroplanes, landing westerly, unless we were guaranteed to break the record. We affirmed, on each occasion, that we expected victory. What the drivers of Mr Iberia's Boeing 727 thought when they saw a Concorde approaching them head-on, we will never know.

After landing, we first told our cabin crew and then made an announcement to the passengers that they had all been party to the new World Record. Our exact take-off and landing times had been recorded by the Air Traffic Control Towers at each end of the journey. These times were verified by the Flight Data Recorder trace (which was analysed for us at Farnborough). The FAI (sporting body) in France ratified both the attempt and the new record; which still stands, of course. Time was 2hr 52mins 59secs to cover a distance of 3,165nm, an average speed of 1,098kts.

It is sad that this record time will not be beaten by other Concorde aeroplanes and Concorde crews. I am sure that we three flight crew would give-up our tiny notoriety in exchange for having the aeroplane back in the air… which is where she really belongs. ■

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