NEW 'BOOM' FOR SUPERSONIC TRAVEL

Jennifer Coutts Clay discusses the return of ultra high-speed travel

On Tuesday 28 January 2025, aviation enthusiasts watching the amazing Boom Supersonic livestream presentation witnessed the dawn of second-generation, civilian, supersonic operations.

With special permission granted by the FAA to fly high above California's Mojave Desert and across the designated Bell X-1 supersonic corridor, chief test pilot Tristan "Geppetto" Brandenburg broke the Mach 1 sound barrier not just once but three times during his 33-minute test flight in the Boom Supersonic XB-1 demonstrator aircraft, registration N990XB.

The XB-1 test flight was a unique event that will live on in the aviation history books. Boasting a beautiful, slender fuselage designed and built in America, the XB-1 is the very first civilian aircraft to fly supersonic above the United States continental landmass and the first civilian jet to break the Mach 1 sound barrier since the Anglo-French Concorde, which operated supersonic passenger services for British Airways and Air France at Mach 2 from 1976 to 2003.

The company explains that the XB-1 is setting the foundation for the Boom Overture. This will be a second-generation supersonic jet which is designed to fly over water at Mach 1.7, approximately twice the speed of today's fastest commercial aircraft.

The proposed flying time from Washington DC to London is approximately four hours, and about three hours from Los Angeles to Honolulu. Billed as being environmentally viable – it will run on sustainable aviation fuel – Boom Overture will have a range of 4,250nm (7,871km) and be built to carry 65 to 80 passengers at Mach 1.7.

Back after a break

After a hiatus of more than 20 years, Concorde loyalists – and all other air travellers – can thrill to the idea of making long-haul flights in about half the time normally taken by subsonic aircraft, enjoying a turbulence-free onboard environment and without the problems of jetlag.

The livestream presentation of the XB-1 test flight was accompanied in real time by expert commentary from a panel of specialists. Clear-language explanations were provided to make the details of the unique technical achievements comprehensible to outside viewers. All aviation

"THE XB-1 IS THE VERY FIRST CIVILIAN AIRCRAFT TO FLY SUPERSONIC ABOVE THE UNITED STATES CONTINENTAL LANDMASS"

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1. The Boom XB-1 cabin seats will have a large IFE touchscreen and a generous tray table/ work-desk surface
2. Boom Supersonic's CEO, Blake Scholl

enthusiasts are strongly encouraged to access the video recording of the historic event on www.boomsupersonic.com.

The XB-1 commentary and the follow-up question and answer session were anchored by Captain Mike Bannister, former chief Concorde pilot, British Airways. He emphasised that, over millennia, the human race has always wanted to move faster, citing the domestication of the horse, followed by the development of ships, trains, cars and, eventually, subsonic aircraft. He praised Boom Supersonic for launching the first-ever independently developed supersonic aircraft – designed, built and flown by an independent American organisation.

Blake Scholl, the founder & CEO of Boom Supersonic, outlined his corporate mission to introduce commercial supersonic travel to the world, to bring humanity closer together and to make the world a smaller place.

With commitments from American Airlines, Japan Airlines and United Airlines, Boom Overture has already secured 130 orders and pre-orders. Scholl asserts that there could be a market for 1,000 economically viable supersonic jets serving business hub routes with passengers paying standard, affordable business-class fares.

The current advertising display for the cabin layout on the Boom Overture shows a comfortable looking business class 'recline-and-stretch-out' seat.

"AFTER A HIATUS OF MORE THAN 20 YEARS, TRAVELLERS CAN THRILL TO THE IDEA OF MAKING LONG-HAUL FLIGHTS IN HALF THE TIME TAKEN BY SUBSONIC AIRCRAFT"

These seats would be configured 1-1, on each side of the aisle. The curved seatback shell would provide a considerable amount of personal privacy for the passenger and feature a large IFE touchscreen plus a generously sized extendable tray table/ work-desk surface.

Interestingly, the livestream made no mention of the unavoidable sonic boom. But Boom Supersonic's website states unequivocally that Boom Overture will fly supersonic only over water and will remain subsonic when over land. So, the disturbing decibel levels will not be heard in populated areas.

Concorde's legacy

During the era of first-generation supersonic transport (SST), Concorde's glory years evolved concurrently with the glory years of the large size, widebody Boeing 747. Following the US Airline Deregulation Act signed into law by President Jimmy Carter in 1978, carriers had to compete ferociously on the transatlantic routes during the 1980s and 1990s to fill the hundreds of seats on each of their 'Jumbo' jetliners.

By contrast, Concorde, seating just 100 passengers in all-one-class service, was marketed as the exclusive preserve of the great, the good and the unusual – a 'halo-type' travel experience closer to that of the private charter aviation sector than to the everyday operations of the multi-class subsonic fleets that had been developed to serve mass affordable air travel.

At the Concorde operating airports, SST passengers checked in at dedicated Concorde desks and waited for their flights in super-elegant Concorde lounges. Onboard, regular SST flyers often greeted each other using their first names, and during the meal service it was customary to have cocktail-party-style conversations with neighboring passengers (note: there were no seatback TV screens in the cabin).

At British Airways (when I was privileged to work as controller corporate identity, with responsibility for the implementation of the airline's visual design programmes across the network, including the interiors and exteriors of both the supersonic and

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1. The ribbon-cutting ceremony at the Overture Superfactory in June 2024
2. XB-1's manufacturers hope to bring supersonic travel to everyone

subsonic fleets), a key question arose frequently in our travel agency and customer focus group meetings: why were Concorde fares always priced at the level of the top-net-worth passenger market segment? The extra payment was typically set at 20% above the level of the published first-class fare for a particular route. Wouldn't Concorde be suitable for passengers paying the published first class and business class fares?

The response: having considered a range of options, both British Airways and Air France had decided that Concorde should cater specifically to the top-net-worth market segment. The argument: for a start, top-tier passengers were clearly happy to pay top-level fares for SST, and many of the affluent Concorde passengers were well accustomed to signing expensive contracts with private charter aviation companies that offered 5-star hotel-style dining options and ultra-luxurious passenger service standards.

Additionally, if Concorde fares were pegged at the normal first class or business class levels, there could be a seriously adverse effect on the first class and business class sections of the airlines' subsonic fleets. These premium cabins could have been rendered obsolete if large numbers of first class and business class passengers had migrated to Concorde – in effect, the airlines would have been poaching from or cannibalising their own high-revenue market segments. Furthermore, how would the airlines have been able to make a profit if their subsonic widebody flights were filled entirely with low-fare economy-class passengers?

The future of supersonic travel

Will Boom Supersonic spark the renaissance of supersonic flight? Will its Overture supersonic jet become the aircraft of choice for certain airlines on the 600-plus business hub routes identified as potentially profitable by Blake Scholl? For airlines competing on the same business-hub routes and utilising their traditionally configured subsonic fleets, there would be an immediate need to review and adjust their 'jugular marketing' strategies and associated fare levels to counter the attractions of their rival newcomer's SST operations.

And what about those airlines that might be planning to add Boom Overture supersonic jets to their existing, multi-class subsonic fleets? The key challenge would be to analyse the potential revenue streams and establish new business models with compatible fare-pricing structures to encompass the full range and differentiation of product features and customer benefits across all the classes of service on offer, including second-generation SST.

Yes, we're looking at you, marketing gurus — it's your turn now. In boardroom meetings, marketing strategists at leading airlines might well already be contemplating the long-term strengths, weaknesses, opportunities and threats associated with the advent of second-generation SST. If the hubs are going to be served by supersonic aircraft, how should airlines plan the developments for the cabins of their subsonic fleets?

Just think of the number of airlines that have hundreds of units in their single-aircraft-type or mixed-aircraft-type fleets. Because of the lead times to implement programmes that cover aircraft interior reconfigurations, product upgrades and retrofits, it is essential to make major marketing decisions many years in advance.

"WILL BOOM SUPERSONIC SPARK THE RENAISSANCE OF SUPERSONIC FLIGHT?"