



NEWS FOR IMMEDIATE RELEASE: March 26, 2018

Supersonic Business Jets Speeding Up

With supersonic business jet (SSBJ) concepts again in the headlines, could they finally be closer to reality? While the existence of a modest market has never been in doubt, cost and persistent risks related to regulatory, engines and sonic boom noise have discouraged production commitments. “These risks have been progressively mitigated and I feel we’re much closer to an SSBJ being formally launched”, predicts aviation analyst Brian Foley. “The final impetus will be from the realization that to command this relatively small but high-value market requires being early, not fashionably late, to capture finite sales.”

One primary regulatory risk has been defining what constitutes an acceptable sonic boom noise over land, which can be quite subjective. Manufacturers have been hesitant to design something that was later discovered not to meet the expectations of what authorities felt it “should” sound like. Today the U.S. Federal Aviation Administration is re-examining the current ban of supersonic flight over land. They will be reporting in the coming months which will hopefully provide the industry with much needed guidance and design latitude.

There are currently two trains of thought amongst potential designers; those who think slowing down over land is an acceptable method to control sonic boom noise and those who believe the market will only accept full supersonic speed capability over both land and water. The design that is first to market could ultimately guide this debate.

Even if a SSBJ is producing an acceptable sonic boom noise level in cruise, a phenomenon known as a “focus boom” could occur whenever the aircraft maneuvers or accelerates. This can amplify the boom above an acceptable threshold and be heard at very specific points on the ground. Design and certain flight restrictions could perhaps limit this.

Having a powerplant that's able to operate in the supersonic regime while still offering reasonable times between maintenance overhauls has also been an issue. There also may be a question of who pays for the development of a new or derivative engine that meets these unique performance and durability requirements. Besides engines, another challenge is that some SSBJ designs will require approval of a forward vision system for pilots since they can't see the runway over the long, bullet-shaped airplane nose during landing.

A few of the traditional business jet makers have floated the idea of a SSBJ over the years. In almost every case, when pressed for when the concept would come to market, the answer was inevitably "10 years". Lately though, from entrants from outside the established industry, the answer has been condensed to 5-7 years which Foley views as a bit aggressive but nevertheless bullish.

It's encouraging to see some of the big names in commercial and defense aviation showing more interest in exploring SSBJs with participants. A SSBJ platform needs both a civil and government market component to be successful. Once the race is on with teams formed and proper funding, the concept could leap forward. "While I now view a formal SSBJ launch as being more conceivable than ever, it's still moving at the very subsonic speed of technology, regulation and money".

About Brian Foley Associates (BRiFO)

Since 2006 BRiFO has provided aviation investors and companies with advice, research and diligence. www.BRiFO.com