
4

Performance

4.1 Introduction

This chapter examines the Performance and Economic characteristics that the market would like to see from an SBJ. The six primary performance factors evaluated are:

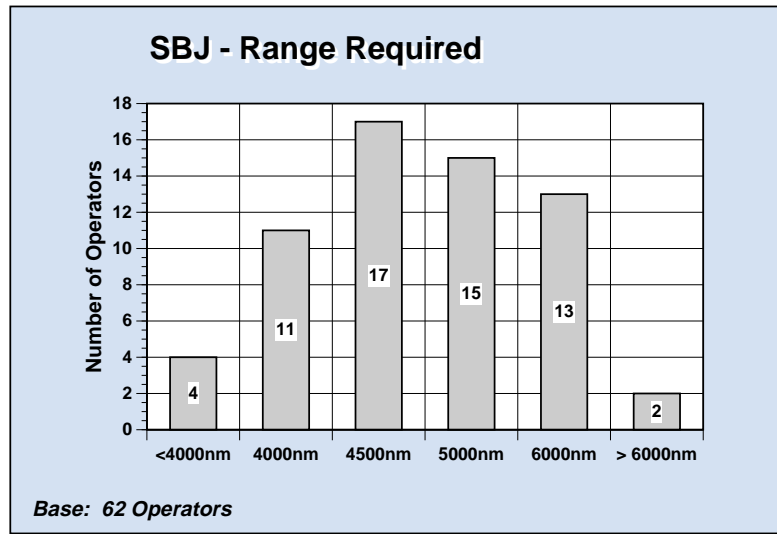
1. Range
2. Speed
3. Price and Economics
4. Field Performance
5. Cabin Size
6. Overland Supersonic Capability

4.2 Range

The range of the proposed Supersonic Business Jet is its most important performance parameter. Lack of range was one of Concorde's most serious shortcomings and has led to some serious safety incidents with the aircraft during its operational life. Some airlines (such as South African Airways) decided not to buy Concorde because of the need to stop and refuel on routes over 3500nm. Several potential SBJ operators commented that the SBJ must have realistic IFR range and fuel reserves, to NBAA rules at least, if not Part 121.

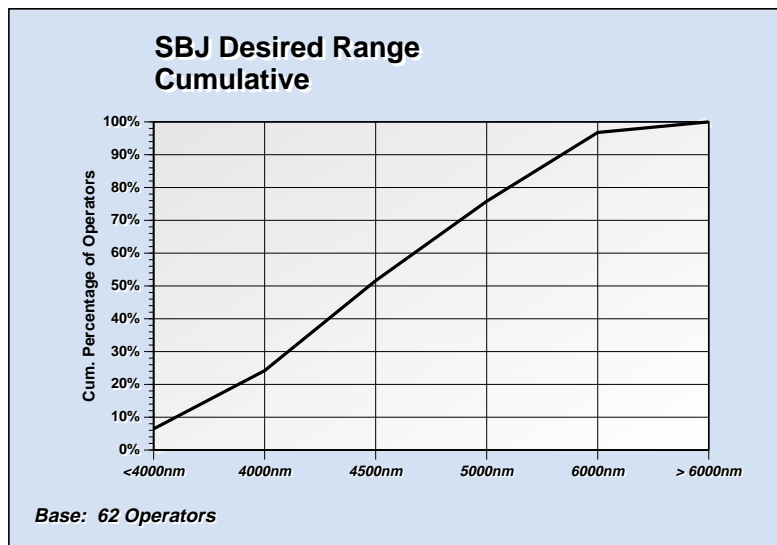
Figure 13 shows the full IFR Range capability that operators would ideally like to see from an SBJ.

FIGURE 13



On a cumulative basis, Figure 14 shows the total percentage of operators who would have their requirements met by different range capabilities of the SBJ.

FIGURE 14



- 24% of operators would be satisfied with an IFR range of 4000nm.
- 52% of operators would be satisfied with an IFR range of 4500nm.
- 76% of operators would be satisfied with an IFR range of 5000nm.

Figure 15 shows the minimum range that operators would consider as acceptable. Some operators would be willing to accept shorter range than their ideal, depending on the rest of the rest of the SBJ's price performance.