

# MA-Thesis / Master

Michael Hans-Reichel

## **Subsonic versus Supersonic Business Jets**

*Full Concept Comparison considering Technical,  
Environmental and Economic Aspects*

**Bibliographic information published by the German National Library:**

The German National Library lists this publication in the National Bibliography; detailed bibliographic data are available on the Internet at <http://dnb.dnb.de>.

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ISBN: 9783842828094

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Comparison considering Technical, Environmental and  
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ISBN: 978-3-8428-2809-4

Herstellung: Diplomica® Verlag GmbH, Hamburg, 2012

Zugl. Technische Fachhochschule Wildau, Wildau, Deutschland, MA-Thesis / Master,  
2011

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## **II Abbreviations**

<i>A/C</i>	<i>Aircraft</i>
<i>ACI</i>	<i>Airport Council International</i>
<i>AoG</i>	<i>Aircraft on Ground</i>
<i>APU</i>	<i>Auxiliary Power Unit</i>
<i>ATC</i>	<i>Air Traffic Control</i>
<i>AVIMA08</i>	<i>Master in Aviation Management - Year 2008</i>
<i>BFL</i>	<i>Balanced Field Length</i>
<i>BPR</i>	<i>By-Pass Ratio</i>
<i>BRIC</i>	<i>Brazil, Russia, India and China</i>
<i>CAEE</i>	<i>Committee on Aircraft Engine Emissions</i>
<i>CAEP</i>	<i>Committee on Aviation Environmental Protection</i>
<i>CAN</i>	<i>Committee on Aircraft Noise</i>
<i>CFR</i>	<i>Code of Federal Regulation</i>
<i>CS</i>	<i>Certification Specifications</i>
<i>CSR</i>	<i>Corporate Social Responsibility</i>
<i>CVP</i>	<i>Cost-Volume-Profit</i>
<i>D</i>	<i>Drag</i>
<i>DAPCA</i>	<i>Development and Procurement Cost of Aircraft</i>
<i>DAPRA</i>	<i>Defence Advanced Research Projects Agency</i>
<i>DMC</i>	<i>Direct Maintenance Cost</i>
<i>DOC</i>	<i>Direct Operating Costs</i>
<i>EADS</i>	<i>European Aeronautic Defence and Space Company</i>
<i>EASA</i>	<i>European Aviation Safety Agency</i>
<i>EIS</i>	<i>Entry Into Service</i>
<i>ETOPS</i>	<i>Extended Range Twin-Engine Operations</i>
<i>EVS</i>	<i>Enhanced Vision System</i>
<i>FAA</i>	<i>Federal Aviation Administration</i>
<i>FAR</i>	<i>Federal Aviation Regulations</i>
<i>FC</i>	<i>Fuel Consumption</i>
<i>FH</i>	<i>Flight Hour</i>
<i>GAC</i>	<i>Gulfstream Aerospace Corporation</i>
<i>GAMA</i>	<i>General Aviation Manufacturers Association</i>
<i>GDP</i>	<i>Gross Domestic Product</i>
<i>GE</i>	<i>General Electric</i>
<i>HiSAC</i>	<i>Environmentally High Speed Aircraft</i>
<i>HSBJ</i>	<i>Hypersonic Business Jet</i>
<i>IATA</i>	<i>International Air Transport Association</i>
<i>IBAC</i>	<i>International Business Aviation Council</i>
<i>ICAO</i>	<i>International Civil Aviation Organisation</i>
<i>ICRP</i>	<i>International Commission on Radiological Protection</i>
<i>ID</i>	<i>Identification</i>
<i>IMC</i>	<i>Indirect Maintenance Cost</i>
<i>IOC</i>	<i>Indirect Operating Costs</i>
<i>IPCC</i>	<i>Intergovernmental Panel on Climate Change</i>
<i>IR</i>	<i>Implementation Rule</i>

<i>IT</i>	<i>Information Technology</i>
<i>JAXA</i>	<i>Japan Aerospace Exploration Agency</i>
<i>L</i>	<i>Lift</i>
<i>LLP</i>	<i>Life Limited Part</i>
<i>LR</i>	<i>Labour Rate</i>
<i>MC</i>	<i>Material Cost</i>
<i>MHI</i>	<i>Mitsubishi Heavy Industry</i>
<i>MMH</i>	<i>Maintenance Man Hour</i>
<i>MTOW</i>	<i>Maximum Take-off Weight.</i>
<i>NASA</i>	<i>National Aeronautics and Space Administration</i>
<i>NBAA</i>	<i>National Business Aviation Association</i>
<i>PID</i>	<i>Probability Impact Diagram</i>
<i>PLC</i>	<i>Product Life Cycle</i>
<i>PR</i>	<i>Public Relations</i>
<i>QSP</i>	<i>Quiet Supersonic Platform</i>
<i>RDTE</i>	<i>Research, Development, Test, &amp; Evaluation</i>
<i>RMP</i>	<i>Risk Management Process</i>
<i>ROI</i>	<i>Return Of Investment</i>
<i>SAI</i>	<i>Supersonic Aerospace International</i>
<i>SARP</i>	<i>Standards And Recommended Practice</i>
<i>SCIA</i>	<i>Supersonic Cruise Industry Alliance</i>
<i>SFC</i>	<i>Specific Fuel Consumption</i>
<i>SSBJ</i>	<i>Supersonic Business Jet</i>
<i>SST</i>	<i>Supersonic Transport</i>
<i>SSTG</i>	<i>Supersonic Transport Group</i>
<i>SWOT</i>	<i>Strengths –Weaknesses–Opportunities–Threats</i>
<i>TBD</i>	<i>To Be Determined</i>
<i>TBO</i>	<i>Time Before Overhaul</i>
<i>TMC</i>	<i>Total Maintenance Cost</i>
<i>TOC</i>	<i>Total Operating Costs</i>
<i>UAC</i>	<i>United Aircraft Corporation</i>
<i>USAF</i>	<i>United States Air Force</i>
<i>USD</i>	<i>United States Dollar</i>
<i>WIT</i>	<i>Wildau Institute of Technology</i>
<i>WP</i>	<i>Working Papers</i>

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