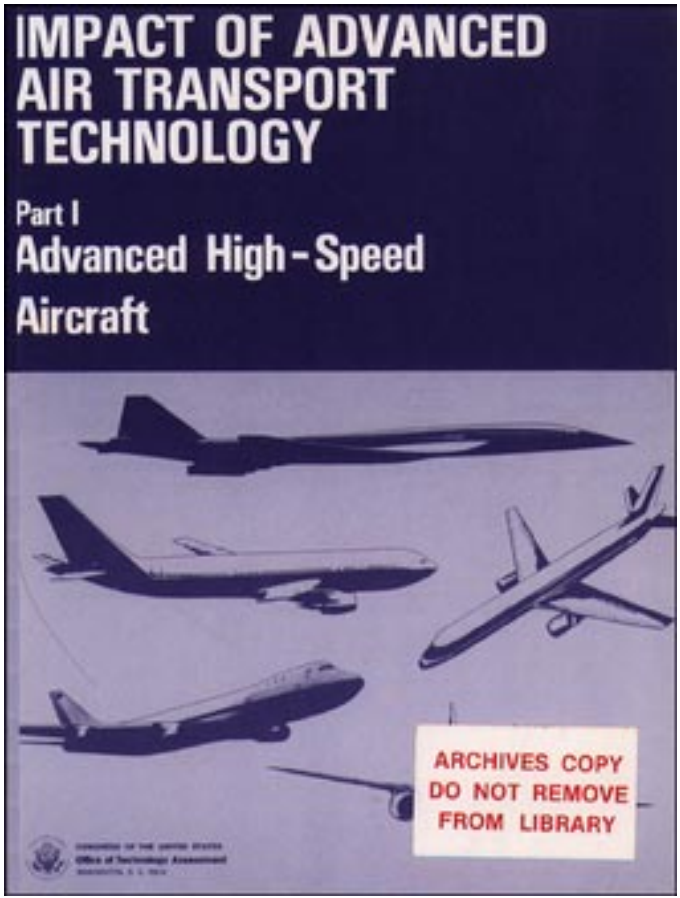
Advanced High-Speed Aircraft

April 1980

NTIS order #PB83-110585



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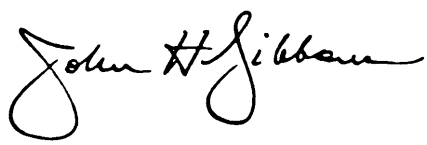
Foreword

In April 1978, the House Science and Technology Committee requested that the Office of Technology Assessment perform a technology assessment "to provide a fresh look at the impact of eventual widescale introduction of advanced high-speed aircraft. " The specific issue raised was whether the potential benefits of advanced supersonic transport aircraft—or second generation supersonic transports—justify increases in the levels of Federal funding for generic research and development in supersonic cruise technology. This request was subsequently endorsed by the Senate Committee on Commerce, Science, and Transportation.

Responding to this request, OTA proposed a broad and long-term study to examine the potential for advanced air transport technology, both passenger and cargo. The objectives of this study were to examine the economic, environmental, energy, societal, and safety impacts of advances in the technology of high-speed aircraft, commuter aircraft, and air cargo. To bring the scope of the assessment within manageable bounds, we focused strictly on the aircraft technologies and excluded the examination of such areas as the airport and terminal area capacity and the air traffic control process, all of which could affect the convenience, efficiency, and safety of our future airport system.

This report is the first in a series and deals solely with advanced high-speed aircraft, including both subsonic and supersonic. Three other reports to be published in the near future comprise the remaining parts of this assessment. They are: "Financing and Program Alternatives for Advanced High-Speed Aircraft, " "Air Service to Small Communities, " and "Air Cargo. "

In conducting this assessment, OTA was assisted by an Advisory Panel and a Working Group each comprised of representatives from Government agencies, the aerospace industry, public interest groups, financial institutions, and universities. The contributions of these individuals and members of their respective organizations were significant and extremely important to the outcome of this study.



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