1. It has been 25 years since the 1962 Anglo-French agreement to build the Concorde was signed. On January 21st of this year, the Concorde fleet completed 11 years of active commercial service. During the last 25 years, there have been significant advances in technology in all the disciplines of aerodynamics, propulsion, structures, and systems that are applicable to a new generation of high speed transport aircraft. This technology was developed during the focused NASA research efforts after the cancellation of the U.S. SST program and in other research efforts directed at high-performance military aircraft or subsonic transport aircraft. The technology currently being developed under the National Aero-Space Plane program will also be applicable to future high-speed civil transport aircraft.

2. NASA is currently conducting extensive contracted and in-house studies examining the market potential, technology requirements, and environmental issues for advanced high-speed civil transports. These studies are investigating a broad range of vehicle concepts covering cruise Mach numbers from 2 to 25 and operating over transpacific ranges (5000 to 6000 nautical miles). This range is of particular interest because projections of future travel demand based on world economic patterns indicate strong growth for travel across the Pacific.

3. As a result of the recommendations coming out of these studies, NASA is in the process of preparing a high-speed transport research and technology program that would provide substantially increased efforts in the required areas. This focused program would provide the required technology developments necessary to insure that the U.S. industry is in a strong competitive position for the design and development of a new high-speed civil transport for operation in 2005-2010.

VITAL QUESTIONS

1. Is sufficient information available to:
   - identify the market opportunities?
   - project economic viability?
   - define the most promising vehicle concepts?
   - address the critical environmental issues?
   - determine the technology requirements?
2. What is the appropriate NASA research program for a high-speed civil transport?
   - is the proposed NASA program focused on the most promising technology areas?
   - is the emphasis among the elements appropriate?
   - is the level of effort reasonable?
   - is the timing appropriate?
   - are there additional opportunities to pursue strong cooperative efforts with industry?
   - what are the priorities for the elements of the proposed NASA program?

TERMS OF REFERENCE

The High-Speed Transport Ad Hoc Review Team will make recommendations as to the proper content for a responsive NASA led high-speed transport research and technology program. These recommendations will be based on information from the on-going High-Speed Civil Transport Studies, other applicable studies, and the relationship of the technology requirements for high-speed civil transports to the technology developments that are being obtained from other NASA and industry R&T programs.

PROPOSED MEMBERSHIP

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   - Louis Harrington (Douglas) (AAC)
   - Benjamin Lightfoot (Northwest Airlines) (AAC) [Bob Knight]
   - William L. Webb (Pratt & Whitney) (AAC)
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