Big Decisions on Big Boom

The Supersonic Transport Problem Involves Noise and Cost and President Must Decide

By Joshua Lederberg

The SST (Supersonic Transport) development program is the most intense commitment made by any government to technological innovation for civil benefit. The President faces some crucial decisions - the winner of a design competition (Lockheed versus Boeing) for the construction of a prototype and, more important, whether to include the whole billion-dollar effort in the list of deferrable programs to meet the budget crisis.

The White House has let several hints. Vice President Humphrey suggested that the budget may not immediately provide for further development - perhaps a trial balloon to assess the vitality of public interest in the SST.

Others have indicated growing doubts about the acceptability of current designs for overland use on account of the sonic boom problem, which catches us in a bind of technical, economic and social considerations. A design large enough to compete economically with the present jets would aggravate the boom.

The central justification for the SST is, obviously, for the longer transoceanic flights. Present policy therefore seems to be pointed toward construction of a larger prototype, leaving domestic service to further design and research. However, even the major intercontinental routes hardly avoid major populations.

A shuttle service between Gander and Shannon is rather dubious. Range may also be a critical factor: an SST limited to 4500 miles will lose much of its technical advantage over the subsonic jet for the really long hops over the Pacific or the Pole.

Most airlines have had muted enthusiasm for a development that will greatly complicate their capital financing and their scheduling problems, though it may have the advantage of damping splinter competition on international routes.

Once we are committed to the exploitation of the SST, how will it be restrained? How do we estimate the price of sonic pollution brought to the margin of public tolerance? According to Aviation Week, "personal opinions shared by many (Lockheed) officials is that the public will learn to live with booms." What is the quality of that life?