

THE SUPERSONIC TRANSPORT

SST



Fantasy and Fact

Charge: *There is no real need for commercial air travel at supersonic speed, and the SST will be a jet set toy.*

Facts: Productivity in air travel is measured by multiplying the number of available seats per airplane by the speed. On this basis the U.S. SST will be:

- Three times as productive as the Concorde and the new generation of tri-jets.
- Twice as productive as the large jumbo jet.
- Four times as productive as the basic jet in the subsonic fleet.

■ The SST is designed to handle the tremendous growth in air travel which is forecast for the 1980s and 1990s, and to keep the cost of air travel within the means of the average American. It is estimated that air travel will increase 200 percent by 1980 and 400 percent by 1990.

■ The SST's productivity will relieve air traffic congestion. There were 4,500 transports in the world's airline fleets in 1958. Today, with five times as much traffic as in 1958, 3,500 subsonic jet transports with their increased productivity over piston-powered transports are accomplishing the job.

■ The new productivity level which the SST will provide will permit the airlines to:

- Provide the traveling public with reasonable fares. Because of the increased productivity of the current generation of jet transports, air travel costs have been holding steady during the past decade while costs of other forms of transportation have gone up.
- Accommodate travel growth while maintaining a reasonable size to the transport fleets.
- Maintain a reasonable financial return in spite of cost escalation.

Charge: *The cost of development should not be borne in major part by the Government.*

Facts: Every commercial transport in service today has benefited to a major degree from Government-sponsored research.

- The military B-47 and B-52 programs provided the essential technology for the first commercial jet transports.

- Today we do not have military aircraft programs underway which would underwrite the development cost of a commercial SST.

- A major corporation producing commercial products can expect to recoup its development costs within a year or two. This is not so with the SST.

- SST development costs will be amortized over a period of up to 10 years after it goes into commercial use at the end of this decade.

- The aerospace industry and the airlines that buy its products are not financially able to bear the burden of carrying out such a large project that has a development lead time of 15 years before the first commercial product can be sold.*

- President Kennedy in 1963 decided that Government investment in the SST clearly was in the national interest. During the last seven years three Administrations and 24 Congressional committees have reviewed the SST program and have given their approval and continued support.

* The British/French Concorde and the Russian TU-144 are entirely funded by their Governments.

Charge: *The Government will not recover its investment in the SST, and the funds from the Government are a subsidy to the aircraft industry.*

Facts: The unique cost-sharing arrangement between Government and industry provides that the Government's investment will be returned after 300 SSTs are sold.

- The Government will earn about \$1 billion in addition to its investment return after 500 SSTs are sold.
- The cost-sharing nature of the U.S. prototype program is different from any other joint Government-industry undertaking because of the contractual requirement for Government reimbursement and profit.
- The U.S. is some 9½ years along in its SST research and development program. About \$1 billion in funds from the Government, from Boeing and General Electric, and from U.S. and foreign airlines has been committed.
- It will take some \$300 million during the next two years to complete the two prototype aircraft and test them. It would cost the Government nearly \$300 million to cancel the program today, this short of the goal.

Charge: *We should use Government funds to fight poverty and to advance other social and human resources programs.*

Facts: Our Government gets the money to launch and to support social and human resources programs from taxes — each individual paying taxes on what he buys and what he earns. Those who provide services and those who produce products generate the money for programs that benefit all.

- In the case of the U.S. SST between \$6 and \$7 billion in taxes will be generated during the next 20 years, not to mention the food, clothing, automobiles, houses, travel and other things that 150,000 people working — directly or indirectly — on the SST will buy.

- A reordering of national priorities and a reallocation of national resources already have taken place. More and more Federal funds have been channeled into programs for education, health, housing, welfare, urban mass transit, environmental activities, job training, law enforcement and many other areas.

- For example, public spending for other than defense is increasing at an annual rate of \$22.9 billion while defense spending has been decreasing at an annual rate of \$2.1 billion for the last three years.

- The money requested for the SST is less than one-tenth of one percent of the total Federal budget and less than three percent of the budget request for other forms of transportation.

- The SST bears upon the priorities of the 1980s and 1990s — upon economic growth, increased employment, a satisfactory foreign trade balance and essential technological advances that will enhance the quality of life in that period.

- Seldom if ever has this nation had a similar opportunity to plan a program that will provide such attractive rewards 18 to 20 years in the future.

Charge: *U.S. commercial aircraft production is not a decisive factor in our balance of trade with other nations.*

Facts: One of the few remaining major product areas in which the United States still is predominant is in the field of building transport aircraft.

- Why? Because U.S. manufacturers have provided a constantly more comfortable, safer and more efficient series of transport aircraft that can be flown by the airlines of free world nations at a reasonable profit.
- Forecasts indicate a \$100 billion market for transport aircraft of all types between 1980 and 2000.
- All foreign manufacturers, including Russia, have their eyes on this growth market. They have decided to try to capture a larger share of this market. This translates into taking business away from the United States which, at this time, has produced between 83 percent and 85 percent of the transport aircraft flying in the world today.

Great Britain, France and Russia decided that the way to get more of the market would be to jump over the highly successful subsonic jets manufactured in the U.S. and build the SST. Similarly, the U.S. SST will jump over the slower and smaller first generation Concorde and TU-144s.

■ In 1970 aerospace foreign sales amounted to \$3,466,000,000. Transport aircraft accounted for \$1,578,000,000 of that total. Without these sales the U.S. would have had a critical negative balance of trade.

■ Conservative studies indicate that over a 12-year period failure to build the U.S. SST will mean a \$22 billion loss to our balance of trade. This is the sum of export sales of \$10 billion for U.S. SSTs and the \$12 billion U.S. air carriers would spend for foreign SSTs.

A sound U.S. economy depends on continued U.S. leadership in the civil aviation field world wide. Every U.S. citizen, including those who are not air travelers, has a stake in keeping our economy strong.

Charge: *The noise created by the SST in the vicinity of airports and the sonic boom will be intolerable. Passengers will suffer from exposure to ultra-violet radiation in the stratosphere.*

Facts: The SST will be quieter than today's aircraft during the takeoff climb from and the landing approach to an airport. The major effort now underway is directed at reducing sideline noise. The engine and airframe manufacturers have now produced noise abatement techniques and designs that comply with the sideline noise levels imposed on new subsonic jet transports.

- The SST will not fly supersonically over land. The SST design is based on operations over the world's long range overwater routes. Flying supersonically over the oceans at 60-65,000 feet, the SST will create a boom with an overpressure of 2.5 pounds per square foot. This is equivalent to the pressure of a half-inch ripple on the surface and would not be noticed by most passengers on a ship.

- Cosmic radiation is not an SST environmental problem. For more than two years specially instrumented aircraft have been flying at supersonic cruise altitudes to collect radiation data. The conclusion: Radiation levels for crews and passengers on the SST will be the same or less than that now experienced on today's subsonic aircraft for any flight throughout the world.

Charge: *The upper atmosphere will be polluted by SST operations, resulting in adverse changes in the climate.*

Facts: All the commercial jet transport aircraft in the world could stop flying today and the instruments that measure pollution would not be able to detect any change in the atmosphere.

- The quantities of particulate matter exhausted by the SST are not significant when compared to the stratospheric dust resulting from natural causes.

- The world is a self-polluter. The steady operation of 500 SSTs would produce about 1/80th of the amount of particulate matter that the earth attracts from space each day.

- Occasional volcanic action puts hundreds of times more dust into the stratosphere than is potentially possible from an entire world fleet of SSTs. Three volcanic eruptions alone have injected more particulate matter into the atmosphere than all of man's activities.

- Contribution of water to the stratosphere would be insignificant. A world-wide total of 1,600 transocean SST flights a day would put about as much water into the stratosphere as a single large thunderstorm, and there are 3,000 to 6,000 such storms around the world every day.

- By the time the United States SST makes its first commercial flight, it will have been in research and development for eighteen years. There is a substantial amount of existing data that shows there is *no* evidence that SST operations will cause adverse effects on the atmosphere or the environment.

Charge: *The SST program will not help the economy. Stopping the program won't hurt the economy.*

Facts: On the domestic economic front the SST program represents employment for more than 150,000 people.

- The U.S. SST program over the period to 1990 will provide a direct labor force of 50,000 jobs throughout the United States, and will create employment for more than an additional 100,000 in the supplemental labor force.

- The combined and cumulative income of the direct and supplemental labor force involved in more than 6,000 companies and plants may well exceed \$33 billion by 1990. This employment will be distributed throughout virtually all of the 50 states.

- The SST program will provide not less than 120,000 jobs in each of the 12 years through 1986, with substantial employment well into 1990.

- This employment pool will be high in quality as well as in quantity, helping to achieve higher education and skill levels. This will add to the economic health and wealth of our society and thereby help to finance urgent domestic programs for social betterment.

- If we do not build the U.S. SST we will in effect be exporting 150,000 jobs to other nations that are buying and selling SSTs. They will own the market.

- Already cutbacks in defense and space programs, coupled with a decline in the general economy, have forced a reduction of nearly 400,000 people in the aerospace labor force during the last two years. Of this, 75,000 are scientists and engineers. The immediate impact of terminating the SST program would be a further loss in the research and development capability available to this nation.

- When an expected 500 U.S. SSTs are sold (270 to foreign airlines), the U.S. can expect to obtain at least \$20 billion of the anticipated \$25 billion world market through 1990.

- A successful SST program will generate an additional \$5.4 billion in Federal tax revenues and an estimated \$1.3 billion in tax revenues for state and local governments.

- The two major constraints on the development and expansion of world commerce that is so important to the prosperity of a nation are transportation and communications. Air transportation is the key constraint.

The fact is that the age of commercial supersonic flight is upon us. Two foreign supersonic transport aircraft models are flying successfully.

The important questions are:

- Will the United States complete two prototypes of an advanced supersonic transport and test them?
- Will the United States, which has built nearly 85 percent of the commercial air transports flying in the world today, manufacture the second generation supersonic transport for commercial airlines at the end of this decade, or will it default its technological, manufacturing and sales preeminence?

What does the U.S. SST mean to you as an individual American?

- 150,000 jobs and their contribution to the economy.
- A return to the Government of \$1 billion more than invested in Federal funds.
- Some \$5.4 billion in tax revenues for the Federal Government and some \$1.3 billion in tax revenues for state and local governments — money to support social and human resources programs.
- Major support for our foreign trade balance from billions of dollars in sales of aircraft, spare parts and service.
- The safest, most comfortable and fastest transportation ever devised.
- The cleanest transportation ever built, from the pollution standpoint.
- The quietest commercial aircraft ever built.
- Continued technological and scientific advances for the benefit of all mankind.



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