

SRB 72-23
April 1972

Source: Speech by Mr. McCurdy,
Aviation Luncheon, Delaware
Valley Council, Philadelphia

NASA AND AERONAUTICS

NASA is doing some very promising experimental work with short-takeoff and landing -- or STOL -- aircraft. We are working on craft of this type that will be safe, highly maneuverable, quiet, and clean. From NASA research will come STOL craft that can perform maneuvers that expose much smaller areas of the city to noise. These craft will be able to avoid surrounding airport corridors, they will use less airspace, and they will require less air maneuvering time, landing time, runway length, and airport size.

To do this, STOL craft require high-lift capability which can come from vehicle integrated propulsion and aerodynamic systems, or propulsive lift. We are engaged in a major effort to obtain lift technology -- but we are trying to it so that it is also quiet and clean, as I have said. This will come through our QUESTOL program, or Quiet Experimental Short Takeoff and Landing Aircraft, and our Quiet Clean Experimental STOL engine program. The QUESTOL experimental aircraft will enter the fabrication phase this summer, and will be flying in 1974. The entire program is not expected to cost more than \$100 million.

As a preview of things to come, let me read you a portion of an editorial that appeared in the St. Louis Globe Democrat a couple of

weeks ago. I think it gives a very good idea of the promise of the STOL craft, even though it does not even mention the quiet and clean aspects.

I quote: "Another strong boost for the further development of short-takeoff-and-landing (STOL) aircraft has been given by the demonstration that these planes actually can 'beat' much faster commercial jet airliners when it comes to transporting passengers from one center-city to another.

This was shown in a race from Chicago to St. Louis Thursday afternoon between a STOL craft and a jetliner. Although the STOL plane's air speed was less than half that of the 500-mile-an-hour jet, the passenger in the slower plane arrived at the pre-set destination in St. Louis more than an hour ahead of the jet-borne passenger.

"The reason the air race came out as it did is obvious. The STOL craft's passenger wasted much less time in ground travel."

The editorial went on to explain that STOL takeoff and landing sites can be located within minutes of downtown areas, saving air passengers valuable time in getting to center-city destinations.

From all this, I think it is clear what an important part STOL craft can play in solving transportation problems in the years ahead.

But NASA is also working on a wide variety of R&D relating to other areas of aeronautics. Quiet propulsion probably leads the list of problems we are attacking -- not just for STOL craft, but for the

big high-speed jets as well. Like the agency that preceded NASA, the NACA, we have done much aeronautics research that is basic to military aircraft. However, this research has almost always carried over to civil aviation as a sort of fringe benefit. Now we are beginning to put a great deal of emphasis on the problems of civil aviation directly. Among other things, we are working on improved ground and airborne electronic systems; better materials, better engine designs; low-cost gas turbines, and a host of other items that will contribute to improved civil aviation transportation systems in the future.