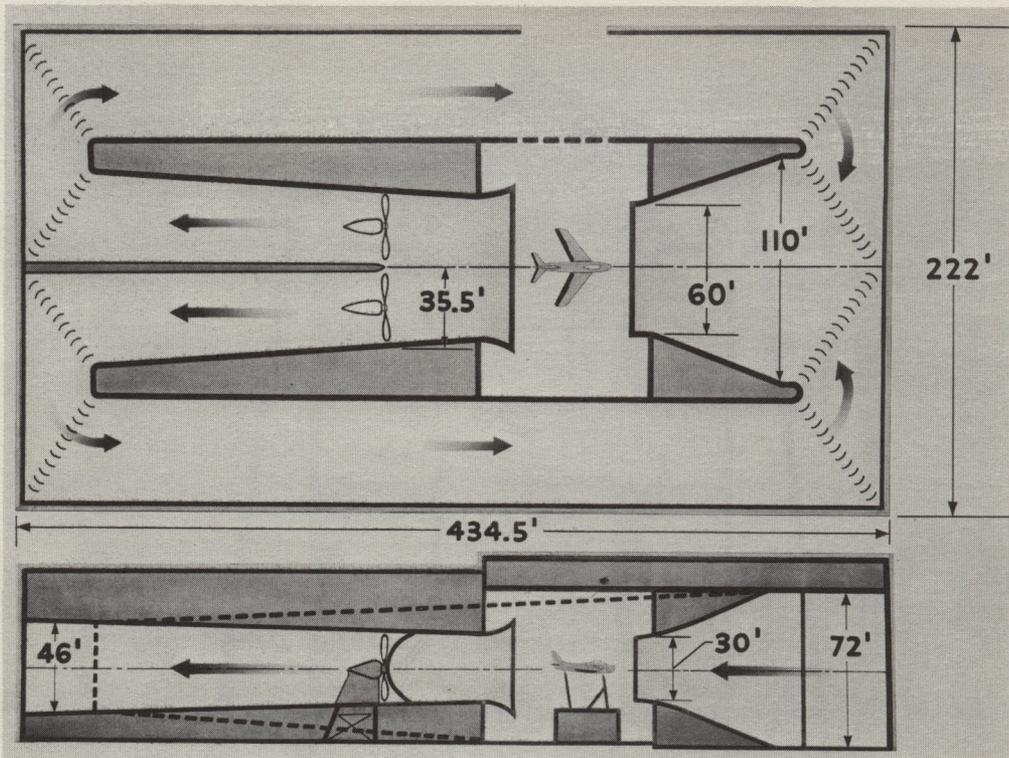


## LANGLEY FULL-SCALE TUNNEL



L-60681

The Langley full-scale tunnel is located in Building 643 and is under the direction of the Flight Mechanics and Technology Division. The test region of the tunnel is 30 feet high, 60 feet wide, and 56 feet long. The tunnel is a continuous, double-return type with an open throat. The test airspeed range is from 25 to 110 mph in 24 steps; a separate speed control is available permitting a continuous airspeed variation from 0 to approximately 40 mph. A reflection-plane floor 42 feet wide and 32 feet long can be installed for full-scale semispan-wing investigations. The tunnel is equipped for free-flight dynamic model studies. Shielded struts are available for model support. Examples of operating conditions are as follows:

Mach number . . . . .	0 to 0.14
Stagnation pressure . . . . .	Atmospheric
Stagnation temperature . . . . .	Ambient
Reynolds number per foot . . . . .	0 to $1 \times 10^6$
Dynamic pressure, lb/sq ft . . . . .	0 to 30
Maximum model size:	
Span, ft . . . . .	50
Weight, lb . . . . .	15 000
Wing semispan, ft . . . . .	20

Langley Research Center,  
National Aeronautics and Space Administration,  
Langley Station, Hampton, Va., June 2, 1965.