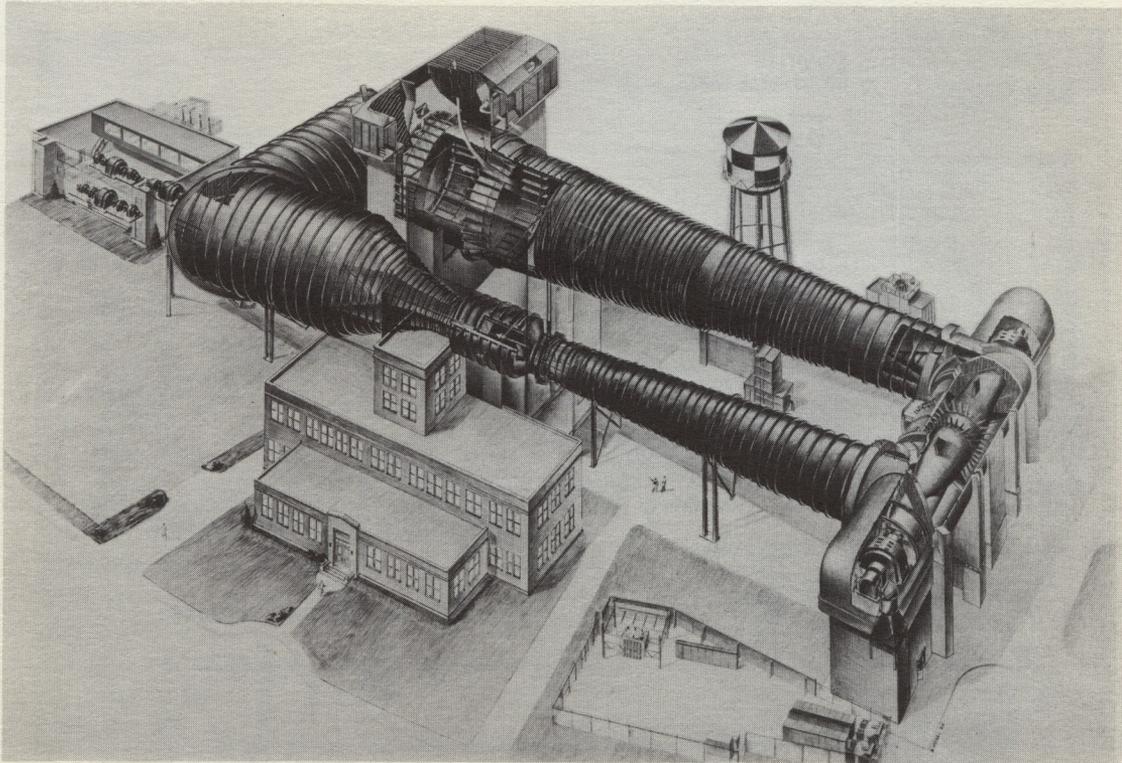


LANGLEY 16-FOOT TRANSONIC TUNNEL



L-88143.1

The Langley 16-foot transonic tunnel is located in Building 1146 and is under the direction of the Full-Scale Research Division. The test medium is air with air exchange for cooling. Model mounting consists of wall, sting, and strut supports. This is a continuous, single-return, atmospheric tunnel with slotted octagonal throat and test section which is 15.5 feet wide and 22 feet long. It can be used for propulsion tests with 90 percent hydrogen peroxide or compressed air. Examples of operating conditions are as follows:

Stagnation pressure	Atmospheric
Stagnation temperature, °R	510 to 650
Reynolds number per foot	1.2×10^6 to 3.7×10^6
Mach number	0.2 to 1.3
Dynamic pressure, lb/sq ft	58 to 830
<i>Cross-sectional area, sq ft</i>	<i>201</i>
<i>Equivalent diameter, ft</i>	<i>16.0</i>