Chronology of Langley 7x10 High Speed Tunnel:

1938  The Special Committee on Future Research Facilities recommends construction of a wind tunnel at Langley with a 7 x 10-Foot diameter test section.

1943  The National Advisory Committee for Aeronautics (NACA) authorizes construction of the 7 x 10-Foot tunnel and construction is undertaken.

1945  The 7 x 10-Foot High-Speed Tunnel (HST) is completed and becomes operational in November.

1946  A “transonic bump” is installed, allowing early transonic testing.

1953  The tunnel is retrofitted with slotted walls, increasing its speed to Mach 1.

mid1950s Sparrow missile model tested

1958-1959  Testing on models of hypersonic research plane X-15, which would contribute to the development of the Space Shuttle. NATO cooperative study of variable-sweep wing concept, leading to development of outboard wing-pivot concept by Alford and Polhamus.


1969  E. J. Ray leads study at tunnel of F-4 maneuver and buffet characteristics.

1971  Tests by Vernon Lockwood on powered model A-10 to determine aerodynamic characteristics in high-power conditions.

mid1980s Waggoner, Allison and Sewall conduct studies to improve EA-6B military aircraft

1985  Fan blade failure

1990  A state-of-the-art fiber-optic-based laser vapor screen (LVS) flow visualization system is installed.

1994  Research at the tunnel is discontinued. Tours at the facility are conducted for visitors through 2001.