

## HISTORY OF BUILDING 580

The National Advisory Committee for Aeronautics (NACA) came into being in March 1915 as a civil agency to promote aeronautical research for the United States. The NACA began operations at its Langley Memorial Aeronautical Laboratory (LMAL) at Langley Field, Virginia in 1917. Although a limited amount of aircraft flight research was conducted by the LMAL in 1919 and early 1920, the research lab did not begin routine operations until the summer of 1920, when its first wind tunnel was completed in NACA Building 60 (which would later be renamed to its current designation Building 580).

When the LMAL was formed, the United States was far behind Europe and aeronautical technology, and Langley's first wind tunnel housed in Building 60 was essentially a replica of a 10-year-old British wind tunnel. The Langley tunnel, known as the 5-Foot Atmospheric Wind Tunnel (AWT) was virtually obsolete even before it began operations and was considered a relatively unproductive wind tunnel. After a decade of initial operations, the AWT was dismantled in 1930 and was replaced in Building 60 by two new wind tunnels, the 5-Foot Vertical Tunnel and the 7 x 10-Foot Atmospheric Wind Tunnel.

The 5-Foot Vertical Wind Tunnel was a specialized facility to study the spinning characteristics of aircraft. The vertical tunnel began operations in December 1929 and its test section was later changed to a 4 x 6-foot configuration. It was subsequently deactivated and dismantled when Langley began operations of a new 15-foot spin tunnel adjacent to the Langley Full-Scale Tunnel (current NASA Building 643). The third wind tunnel to occupy Building 60 was the 7 x 10-foot tunnel, and it proved to be one of the most productive and important wind tunnels in the Langley inventory during the 1930s and World War II. Research conducted in the 7 x 10-foot tunnel focused on stability, control, and high-lift devices for aircraft of that era. It was so successful that two additional wind tunnels having the same dimensions were constructed in the West Area of Langley (Buildings 1212A and 1212B) in the 1940s, and at the NACA Ames Laboratory in Mountain View, California. The original 7 x 10 tunnel in Building 60 was deactivated in 1946.

When the NACA was incorporated into the new NASA agency in 1958, Building 60 (along with several other buildings in the East Area) was used to house personnel of the newly formed NASA Space Task Group (STG). The Director of the STG, Robert R. Gilruth and his immediate staff had offices in Building 58 (currently Building 587), which was the original headquarters building for the NACA at Langley Field. Meanwhile, STG members were dispersed in several other NASA buildings.

Offices for the original seven Mercury astronauts were located in Building 60 during their early careers at Langley from 1959 to 1961. Within the building, the excitement and planning for Project Mercury and future manned missions to space intensified. In September 1961, NASA announced its decision to relocate the STG to

Houston, Texas, and most of the 700 STG engineers and their families moved there during late 1961 in early 1962. By June 1962, the entire STG had moved to Houston.

In early 1962 a new numbering system for buildings located in the East Area of Langley went into effect, and Building 60 was given its current designation of Building 580. In view of its historic past, which ranged from the earliest beginnings of NASA and its first wind tunnel to occupancy by the most famous NASA astronauts of all time, one can easily be justified in proclaiming Building 580 to be one of the most significant buildings in the history of NASA.