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John H. Glenn Research Center at Lewis Field (GRC)

On January 23, 1941, ground was broken in Cleveland, Ohio, to create the facility now known as The NASA Glenn Research Center at Lewis Field (GRC). In 1943, at the dedication ceremony for the Center, Dr. George W. Lewis, NACA Director of Aeronautical Research, provided this prophecy: "There is no doubt as to the excellent quality of results that will flow from this laboratory." The accuracy of his prediction has been born out in the research done at GRC from its earliest days to the present.

Originally one of three Research Laboratories of the National Advisory Committee for Aeronautics (NACA), work at the newly constructed Aircraft Engine Research Laboratory (AERL) took place in a handful of buildings on two hundred acres of land that had been the site of the National Air Races. Seven original buildings were completed by 1945, those being the Hangar, Engine Propeller Research Building, Fuels and Lubricants Building, Administration Building, Altitude Wind Tunnel, Icing Research Tunnel and the Jet Propulsion Static Laboratory. "The AERL," as it was commonly referred to by Clevelanders, had as its mission to study the power and efficiency of aircraft engines. Early research focused on advancing the science of aviation with the aim of creating air superiority over our enemies in WWII. At the close of the war in 1945, the AERL joined the nation in focusing on peace-time goals. Work in aeronautics continued to be the mainstay of the Center. Wartime research on turbochargers and airplane icing led into further work on turbomachinery, jet propulsion, rocket engines, and propellants. In April, 1947 the Center was renamed the Flight Propulsion Research Laboratory (FPRL) to reflect this new focus, and a year later was renamed the Lewis Flight Propulsion Laboratory (LFPL) in honor of Dr. Lewis, who had served NACA for twenty-three years.

In the decade that followed, the Center continued to meet the research needs of the jet age by extending its size and scope. This expansion included: two new wind tunnels, the Materials and Structures Complex, the Rocket Engine Test Facility and the Propulsion Systems Laboratory; selection to design and build a nuclear test reactor (for which NACA acquired the 6000 acre Plum Brook Army Ordnance Works in Sandusky, Ohio); and, as a precursor to the space age, liquid hydrogen fuels research broke new ground in the field of aircraft propellants.

The Center officially entered the space age in 1958 as NACA was reorganized into NASA by the National Aeronautics and Space Act. Under its new name, the NASA Lewis Research Center (LeRC) undertook additional responsibility in the fields of research and development in space power technology, launch vehicles and chemical and electric propulsion for space. The physical plant expanded again as the LeRC Cleveland site acquired an additional 139 acres and the Developmental Engineering Building, the Electric Propulsion Laboratory, the Energy Conversion Laboratory, and the Zero Gravity Research Facility were built. Having supported the achievement of NASA's goals in the space race, the Center's world class facilities continued to lead or support all of NASA's missions in the years that followed: to explore space; to learn more about earth and protect its environment; to explore human development in space; and to build stronger and safer aircraft and space vehicles.

GRC today consists of over 300 acres, has 150 buildings, including 31 major research facilities and 3500 civil and contract employees at its Cleveland location. The latest additions to the Center have been the Research and Analysis Center and the Power Systems Facility. The Plum Brook Station near Sandusky, Ohio contains nearly 6,000 acres and additional test facilities. The Center was renamed once more in 1999. At the dawn of the new millennium the Center became the NASA John H. Glenn Research Center at Lewis Field (GRC) in tribute to Ohio Astronaut and U.S. Senator Glenn, and to Dr. George W. Lewis who foresaw the promise of a landmark research facility.

Additional resources about Glenn Research Center:

Dawson, Virginia P. *Engines and Innovation: Lewis Laboratory and American Propulsion Technology*. NASA SP-4306, 1991.

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