

Although it is uncertain whether either piece of legislation will eventually become law, it is a fact that since 1950, there have been 68 franchise moves in baseball, football, basketball and hockey, 37 of which have taken place since 1970. Some existing baseball franchises are in financial trouble, including the Marlins, whose owner Wayne Huizenga now estimates his team will lose \$30 million this year, forcing him to reduce his payroll next season or sell the franchise.

Perhaps Huizenga could take a page from his hockey franchise, and sell the Marlins back to the team's fans. This would go a long way towards establishing a balance between the private interests of team owners to maintain a profitable business and the ability of the Florida community to enjoy the direct and indirect benefits of having a professional baseball team.

NASA LEWIS RESEARCH CENTER:  
PART 2

**HON. DENNIS J. KUCINICH**

OF OHIO

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, July 30, 1997*

Mr. KUCINICH. Mr. Speaker, I rise to honor and pay credit to the excellent work being conducted by the National Aeronautics and Space Administration's [NASA's] Lewis Research Center [Lewis].

The center, located in Cleveland, OH, is one of 10 NASA field centers. Employing more than 2,000 personnel and comprised in more than 140 buildings, Lewis is one of NASA's larger research facilities and has, since its groundbreaking in 1941, been invested with some \$480 million. Lewis has developed an international reputation for its research on jet propulsion systems and under the current directorship of Donald Campbell, research and development of new propulsion power is continuing to flourish.

NASA has designated Lewis as its No. 1 center for aeropropulsion. Its pioneering work in developing and verifying aeropropulsion technology has benefited the Nation directly, through the results and data which it has compiled and also through the transfer of this knowledge to U.S. industry. Indirectly, such advances have significantly contributed to the promotion of economic growth and national security through safe and superior U.S. aircraft propulsion systems.

Lewis is also NASA's Center of Excellence in Turbomachinery. It has developed innovative technology and made use of its analytical and experimental expertise to enhance future aerospace technology. Lewis' other roles and missions include aeronautics research, on-board space applications and commercial communications.

The following Congressional Research Service report, "NASA Lewis Research Center: Part 2," outlines the functions, history, and current roles and missions of the center:

NASA LEWIS RESEARCH CENTER: PART 2  
INTRODUCTION

This report examines the National Aeronautics and Space Administration's (NASA's) Lewis Research Center (LeRC).<sup>1</sup> Changes at the center during the 1990s are examined as well as how NASA's announced plans compare with Lewis' current roles and missions.

Whenever the closing of any of NASA's centers is discussed within the space commu-

nity, some mention Lewis as a likely candidate. This report finds that although Lewis has been downsized at a greater rate in the 1990s than most of NASA's centers, it does not appear to be in danger of being closed in the near-term if currently planned budgets are funded. As currently envisioned, Lewis is expected to have a significant role in NASA's future in fulfilling the goals set forth in the agency's strategic plan through 2025 and beyond.

LOCATION

The center is located 20 miles southwest of Cleveland, Ohio, occupying 350 acres of land adjacent to Cleveland Hopkins International Airport. Lewis comprises more than 140 buildings that include 24 major facilities and over 500 specialized research and test facilities. Additional facilities are located at Plum Brook Station, a 6,400-acre facility about 50 miles west of Cleveland and 3 miles south of Sandusky, Ohio. The center currently has approximately 2,150 employees and on-site contractors totaling approximately 1,600.<sup>2</sup> Since its initial groundbreaking in 1941, more than \$480 million has been invested in the center's capital plant. According to the center, its currently estimated replacement cost is approximately \$1.3 billion.

The Director of LeRC is Donald J. Campbell and the Deputy Director is Martin P. Kress. Julian M. Earls is the Deputy Director for Operations.

HISTORY

Lewis was established in 1941 by the National Advisory Committee for Aeronautics (NACA). At that time it was known as the Aircraft Engine Research Laboratory. It was one of three NACA centers nationwide.<sup>3</sup> Named for George W. Lewis, NACA's Director of Research from 1924 to 1947, the center developed an international reputation for its research on jet propulsion systems. The three NACA Centers became the nucleus of NASA when it was created in October 1958.

CURRENT ROLES AND MISSIONS

The work of Lewis is directed toward research and development of new propulsion, power, and communications technologies for application to aeronautics and space. Microgravity research in fluids and combustion also is a main area of focus. The end product of Lewis' work is knowledge, usually in the form of a report, that is made fully available to potential users—the aircraft engine industry, the energy industry, the automotive industry, the space industry, other NASA centers, and other federal government organizations.

NASA has designated Lewis as its Lead Center for Aeropropulsion. The center's role is to develop, verify, and transfer aeropropulsion technologies to U.S. industry. The center's aeropropulsion program plays a significant role in the agency's goals to promote economic growth and national security through safe, superior, and environmentally compatible U.S. civil and military aircraft propulsion systems. The agency's major efforts are in subsonic, supersonic, hypersonic, general aviation, and high-performance aircraft propulsion systems, as well as in materials, structures, internal fluid mechanics, instrumentation and controls, interdisciplinary technologies, and aircraft icing research.

Lewis has also been designated NASA's Center of Excellence in Turbomachinery. It develops innovative technology and leverages its computational, analytical, and experimental expertise in turbomachinery to enhance future aerospace programs. The goal is to attain improvements in reliability, performance, and efficiency; increases in affordability, capacity, safety, and environmental

capability; and reductions in design cycle time and development costs. Areas of focus include air-breathing propulsion and power systems, primary and auxiliary propulsion and power systems, on-board propulsion systems, and rotating machinery for the pumping of fuels. Related technologies include fans, compressors, turbines, pumps, combustors, bearings, seals, gears, inlets, nozzles, sensors, and actuators. Related disciplines include materials, structures, lubrication, acoustics, heat transfer, computational fluid dynamics, combustion, cryogenics, icing, and controls.

Lewis' roles and missions include: Managing a broad array of aeronautics research and technology propulsion activities including propulsion support technology and propulsion systems analysis; space applications involving power and on-board propulsion; commercial communications; managing intermediate and large payload launch vehicles; and microgravity research in the disciplines of combustion science, fluids physics, and ground-based research.

Lewis is a major contributor to many NASA-wide programs. These programs include: NASA's High Speed Research program in the areas of combustor design and enabling propulsion materials; the Advanced Communications Technology Satellite (ACTS) effort; microgravity research on board the Space Shuttle in addition to its historical contributions to the program; the development of the Lewis-designed Electrical Power System for the International Space Station (ISS). Lewis will also be a major contributor to the microgravity science aboard the ISS including the development of the Fluids and Combustion Facility; U.S.-Russian cooperative programs such as the Mir Cooperative Solar Array and providing microgravity science experiments; and the Mars Pathfinder mission.

FOOTNOTES

<sup>1</sup>Lewis is one of 10 NASA field centers. The other nine field centers are Ames Research Center (ARC) in California, Dryden Flight Research Center (DFRC) in California, Goddard Space Flight Center (GSFC) in Maryland, the Jet Propulsion Laboratory in California, the Johnson Space Center (JSC) in Texas, the Langley Research Center (LaRC) in Virginia, the Marshall Space Flight Center (MSFC) in Alabama, and the John C. Stennis Space Center (SSC) in Mississippi. Except for JPL, which is a federally funded research and development center (FFRDC) run by the California Institute of Technology, all these centers are federally owned and operated facilities.

<sup>2</sup>Employee levels are as of March 1997.

<sup>3</sup>Ames Research Center in California and Langley Research Center in Virginia were the other two.

IN RECOGNITION OF DR. RICHARD L. LESHER, RETIRING PRESIDENT OF U.S. CHAMBER OF COMMERCE

**HON. SUE W. KELLY**

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, July 30, 1997*

Mrs. KELLY. Mr. Speaker, on Monday, February 24, Dr. Richard L. Lesher, the president of the U.S. Chamber of Commerce, announced his retirement. So, I rise today to recognize Dr. Lesher, an individual who in his 22-year tenure at the helm of the U.S. Chamber of Commerce has displayed a singular dedication to nurturing entrepreneurship and championing the cause of America's small businesspeople.

With his steady leadership, Dr. Lesher has left a lasting legacy for our Nation's business