

**Calendar No. 433**

116TH CONGRESS }  
2d Session }

SENATE

{ REPORT  
{ 116-218

NEIL A. ARMSTRONG TEST FACILITY ACT

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R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND  
TRANSPORTATION

ON

S. 2472



FEBRUARY 27, 2020.—Ordered to be printed

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED SIXTEENTH CONGRESS

SECOND SESSION

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### NEIL A. ARMSTRONG TEST FACILITY ACT

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Mr. WICKER, from the Committee on Commerce, Science, and  
Transportation, submitted the following

### R E P O R T

[To accompany S. 2472]

[Including cost estimate of the Congressional Budget Office]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 2472) to redesignate the NASA John H. Glenn Research Center at Plum Brook Station, Ohio, as the NASA John H. Glenn Research Center at the Neil A. Armstrong Test Facility, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

#### PURPOSE OF THE BILL

The purpose of S. 2472 is to redesignate the National Aeronautics and Space Administration (NASA) John H. Glenn Research Center at Plum Brook Station, Ohio, as the NASA John H. Glenn Research Center at the Neil A. Armstrong Test Facility.

#### BACKGROUND AND NEEDS

The Neil A. Armstrong Test Facility Act would redesignate the NASA John H. Glenn Research Center at Plum Brook Station as the NASA John H. Glenn Research Center at the Neil A. Armstrong Test Facility. Neil Armstrong, the NASA astronaut who was the first human to walk on the Moon, began his NASA career as a test pilot at the NASA John H. Glenn Research Center at Plum Brook Station, and this legislation would rename the facility in his honor.

## NASA JOHN H. GLENN RESEARCH CENTER AT PLUM BROOK STATION

Plum Brook Station, in Sandusky, Ohio, is a remote test facility for the NASA Glenn Research Center in Cleveland, Ohio. Plum Brook is home to four world-class test facilities, which perform complex and innovative ground tests for the international space community.

The Space Environments Complex (SEC) houses the world's largest and most powerful space environment simulation facilities including the Space Simulation Vacuum Chamber. The Reverberant Acoustic Test Facility is the world's most powerful spacecraft acoustic test chamber, which can simulate the noise of a spacecraft launch up to 163 decibels. The Mechanical Vibration Facility is the world's highest capacity and most powerful spacecraft shaker system, subjecting test articles to the rigorous conditions of launch. The In-Space Propulsion Facility is the world's only facility capable of testing full-scale, upper-stage launch vehicles and rocket engines under simulated high-altitude conditions. The engine or vehicle can be exposed for indefinite periods to low ambient pressures, low-background temperatures, and dynamic solar heating to simulate the environment of orbital or interplanetary travel.

## NEIL A. ARMSTRONG

As the spacecraft commander for the NASA Apollo 11 mission, Neil Armstrong became the first human to walk on the lunar surface. Millions of viewers watching the broadcast of the Moon landing were inspired by his words as he took the first step on the lunar surface: "That's one small step for a man, one giant leap for mankind."

After serving as a naval aviator from 1949 to 1952, Armstrong joined the National Advisory Committee for Aeronautics (NACA) in 1955. His first assignment was with the NACA Lewis Research Center in Cleveland, Ohio, which is now known as the NASA John H. Glenn Center. Over the next 17 years, he was an engineer, test pilot, astronaut, and administrator for NACA and its successor agency, the National Aeronautics and Space Administration (NASA).

Armstrong transferred to astronaut status in 1962 and was assigned as command pilot for the Gemini 8 mission. Gemini 8 was launched on March 16, 1966, and Armstrong performed the first successful docking of two vehicles in space. After the Apollo 11 mission, Armstrong subsequently held the position of Deputy Associate Administrator for Aeronautics at NASA Headquarters in Washington, DC. In this position, he was responsible for the coordination and management of overall NASA research and technology work related to aeronautics.

He was professor of aerospace engineering at the University of Cincinnati from 1971 to 1979. During the years 1982–1992, Armstrong was chairman of Computing Technologies for Aviation, Inc., Charlottesville, Virginia.

He received a bachelor of science degree in aeronautical engineering from Purdue University and a master of science in aerospace engineering from the University of Southern California. He also held honorary doctorates from a number of universities.

Armstrong was a fellow of the Society of Experimental Test Pilots and the Royal Aeronautical Society, and an honorary fellow of the American Institute of Aeronautics and Astronautics and the International Astronautics Federation. He was a member of the National Academy of Engineering and the Academy of the Kingdom of Morocco. He served as a member of the National Commission on Space (1985–1986), as Vice-Chairman of the Presidential Commission on the Space Shuttle Challenger Accident (1986), and as Chairman of the Presidential Advisory Committee for the Peace Corps (1971–1973).

Armstrong was decorated by 17 countries. He was the recipient of many special honors, including the Presidential Medal of Freedom; the Congressional Gold Medal; the Congressional Space Medal of Honor; the Explorers Club Medal; the Robert H. Goddard Memorial Trophy; the NASA Distinguished Service Medal; the Harmon International Aviation Trophy; the Royal Geographic Society's Gold Medal; the Federation Aeronautique Internationale's Gold Space Medal; the American Astronautical Society Flight Achievement Award; the Robert J. Collier Trophy; the AIAA Astronautics Award; the Octave Chanute Award; and the John J. Montgomery Award.

Armstrong passed away on August 25, 2012, following complications resulting from cardiovascular procedures. He was 82 years old.

#### SUMMARY OF PROVISIONS

- The Neil A. Armstrong Test Facility Act would do the following:
- Provide the findings of Congress regarding the accomplishments of NASA test pilot and astronaut Neil Armstrong.
  - Redesignate in his honor the NASA facility at which Armstrong began his career.

#### LEGISLATIVE HISTORY

S. 2474, the Neil A. Armstrong Test Facility Act, was introduced on September 12, 2019, by Senator Portman (for himself and Senator Brown) and was referred to the Committee on Commerce, Science, and Transportation of the Senate. On November 13, 2019, the Committee met in open Executive Session and, by voice vote, ordered S. 2472 reported favorably without amendment.

#### ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

<b>S. 2472, Neil A. Armstrong Test Facility Act</b>			
As ordered reported by the Senate Committee on Commerce, Science, and Transportation on November 13, 2019			
By Fiscal Year, Millions of Dollars	2020	2020-2024	2020-2029
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	*	*	not estimated
Statutory pay-as-you-go procedures apply?	No	<b>Mandate Effects</b>	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2030?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No
* = between zero and \$500,000.			

S. 2472 would redesignate the NASA John H. Glenn Research Center at Plum Brook Station, Ohio, as the NASA John H. Glenn Research Center at the Neil A. Armstrong Test Facility.

CBO estimates that enacting S. 2472 would have no significant effect on spending subject to appropriation.

The CBO staff contact for this estimate is Janani Shankaran. The estimate was reviewed by H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.

#### REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

#### NUMBER OF PERSONS COVERED

The bill, as reported, would redesignate the NASA John H. Glenn Research Center at Plum Brook Station as the NASA John H. Glenn Center at the Neil A. Armstrong Test Facility. Persons affected by this legislation would be limited to those involved in the redesignation of the facility.

#### ECONOMIC IMPACT

The bill, as reported, is not expected to have a negative impact on the Nation's economy.

#### PRIVACY

The reported bill is not expected to have an adverse impact on the personal privacy of individuals.

#### PAPERWORK

The Committee does not anticipate a major increase in paperwork burdens resulting from the passage of this legislation. In those areas where the reported bill requires additional paperwork,

it would be a limited and temporary occurrence due to redesignating the facility.

#### CONGRESSIONALLY DIRECTED SPENDING

In compliance with paragraph 4(b) of rule XLIV of the Standing Rules of the Senate, the Committee provides that no provisions contained in the bill, as reported, meet the definition of congressionally directed spending items under the rule.

#### SECTION-BY-SECTION ANALYSIS

##### *Section 1. Short title.*

This section would provide that the bill may be cited as the “Neil A. Armstrong Test Facility Act”.

##### *Section 2. Findings.*

This section would provide the findings of Congress regarding Neil A. Armstrong’s history with what is now the NASA John H. Glenn Research Center at Plum Brook Station, Ohio, as well as the rationale for renaming the Center in his honor.

##### *Section 3. Redesignation of NASA John H. Glenn Research Center at Plum Brook Station, Ohio, as NASA John H. Glenn Research Center at the Neil A. Armstrong Test Facility.*

This section would redesignate the NASA John H. Glenn Research Center at Plum Brook Station, Ohio, as the NASA John H. Glenn Research Center at the Neil A. Armstrong Test Facility.

#### CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee states that the bill as reported would make no change to existing law.