116TH CONGRESS
1ST SESSION

S. 590

To award Congressional Gold Medals to Katherine Johnson and Dr. Christine Darden, to posthumously award Congressional Gold Medals to Dorothy Vaughan and Mary Jackson, and to award a Congressional Gold Medal to honor all of the women who contributed to the success of the National Aeronautics and Space Administration during the Space Race.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 27, 2019

Mr. COONS (for himself, Ms. MURKOWSKI, Ms. HARRIS, Mrs. HYDE-SMITH, Mr. GARDNER, Mrs. FISCHER, Mr. KENNEDY, Mr. ISAKSON, Ms. ERNST, Mr. ALEXANDER, Mr. RUBIO, Mr. BURR, Mr. PORTMAN, Mr. BLUNT, Mrs. CAPITO, Ms. COLLINS, Mr. TILLIS, Mr. SCOTT of South Carolina, Mrs. BLACKBURN, Ms. KLOBUCHAR, Mr. KING, Mr. CARDIN, Mr. SANDERS, Mr. CASEY, Ms. CORTEZ MASTO, Mr. VAN HOLLEN, Mr. SCHUMER, Mr. BOOKER, Ms. STABENOW, Mrs. FEINSTEIN, Mr. DURBIN, Mr. JONES, Ms. WARREN, Mr. PETERS, Mr. REED, Mrs. SHAHEEN, Mr. MERKLEY, Mr. MANCHIN, Mr. TESTER, Ms. HASSAN, Ms. CANTWELL, Mr. BENNET, Mr. LEAHY, Mr. BLUMENTHAL, Mr. WYDEN, Mr. WHITEHOUSE, Ms. BALDWIN, Ms. DUCKWORTH, Mr. KAINE, Mr. CARPER, Mr. MORAN, Mr. SULLIVAN, Mr. HOEVEN, Mr. WICKER, Mr. SCHATZ, Mr. MURPHY, Mr. MARKEY, Mrs. GILLIBRAND, Mr. WARNER, Mrs. MURRAY, Ms. SMITH, Mr. UDALL, and Ms. SINEMA) introduced the following bill; which was read twice and referred to the Committee on Banking, Housing, and Urban Affairs

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A BILL

To award Congressional Gold Medals to Katherine Johnson and Dr. Christine Darden, to posthumously award Congressional Gold Medals to Dorothy Vaughan and Mary Jackson, and to award a Congressional Gold Medal to honor all of the women who contributed to the success

of the National Aeronautics and Space Administration during the Space Race.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Hidden Figures Congressional Gold Medal Act''.

SEC. 2. FINDINGS.

Congress finds the following:

(1) In 1935, the National Advisory Committee for Aeronautics (referred to in this section as ''NACA'') hired 5 women to serve as the first ''computer pool'' at the Langley Memorial Aeronautical Laboratory where those women took on work making calculations that male engineers had made previously.

(2) During the 1940s, NACA began recruiting African-American women to work as computers and initially separated those women from their White counterparts in a group known as the ''West Area Computers'' where the women were restricted to segregated dining and bathroom facilities.

(3) Katherine Johnson was born on August 26, 1918, in White Sulphur Springs, West Virginia.

(4) In 1953, Katherine Johnson began her career in aeronautics as a computer in the segregated

West Area Computing unit described in paragraph (2).

(5) As a member of the Flight Research Division, Katherine Johnson analyzed data from flight tests. After NACA was reformulated into the National Aeronautics and Space Administration (referred to in this section as ''NASA''), Katherine Johnson—

(A) calculated the trajectory for Alan Shepard's Freedom 7 mission in 1961, which was the first human spaceflight by an individual from the United States;

(B) co-authored a report that provided the equations for describing orbital spaceflight with a specified landing point, which made her the first woman to be recognized as an author of a report from the Flight Research Division;

(C) was asked to verify the calculations when electronic computers at NASA were used to calculate the orbit for John Glenn's Friendship 7 mission; and

(D) provided calculations for NASA throughout her career, including for the Apollo missions.

(6) Katherine Johnson retired from NASA in 1986.

(7) Dr. Christine Darden was born on September 10, 1942, in Monroe, North Carolina.

(8) In 1962, Dr. Christine Darden graduated from Hampton Institute with a B.S. in Mathematics and a teaching credential.

(9) Dr. Christine Darden attended Virginia State University where she studied aerosol physics and earned an M.S. in Applied Mathematics.

(10) Dr. Christine Darden began her career in aeronautics in 1967 as a data analyst at NASA's Langley Research Center (referred to in this section as ''Langley'') before being promoted to aerospace engineer in 1973. Her work in this position resulted in the production of low-boom sonic effects, which revolutionized aerodynamics design.

(11) Dr. Christine Darden completed her education by earning a Ph.D. in Mechanical Engineering from George Washington University in 1983.

(12) While working at NASA, Dr. Christine Darden—

(A) was appointed to be the leader of the Sonic Boom Team, which worked on designs to

minimize the effects of sonic booms by testing wing and nose designs for supersonic aircraft;

(B) wrote more than 50 articles on aeronautics design; and

(C) became the first African American to be promoted to a position in the Senior Executive Service at Langley.

(13) Dorothy Vaughan was born on September 20, 1910, in Kansas City, Missouri.

(14) Dorothy Vaughan began working for NACA in 1943. Dorothy Vaughan—

(A) started at NACA as a member of the West Area Computing unit;

(B) was promoted to be the head of the West Area Computing unit, becoming NACA's first African-American supervisor, a position that she held for 9 years; and

(C) became an expert programmer in FORTRAN as a member of NASA's Analysis and Computation Division.

(15) Dorothy Vaughan retired from NASA in 1971 and died on November 10, 2008.

(16) Mary Jackson was born on April 9, 1921, in Hampton, Virginia.

(17) Mary Jackson started her career at NACA in 1951, working as a computer as a member of the West Area Computing unit.

(18) After petitioning the city of Hampton to allow her to take graduate-level courses in math and physics at night at the all-White Hampton High School, Mary Jackson was able to complete the required training to become an engineer, making her NASA's first female African-American engineer.

(19) Mary Jackson—

(A) while at NACA and NASA—

(i) worked in the Theoretical Aerodynamics Branch of the Subsonic-Transonic Aerodynamics Division at Langley where she analyzed wind tunnel and aircraft flight data; and

(ii) published a dozen technical papers that focused on the boundary layer of air around airplanes; and

(B) after 21 years working as an engineer at NASA, transitioned to a new job as Langley's Federal Women's Program Manager where she worked to improve the prospects of NASA's female mathematicians, engineers, and scientists.

(20) Mary Jackson retired from NASA in 1985 and died in 2005.

(21) These 4 women, along with the other African-American women in NASA's West Area Computing unit, were integral to the success of the early space program. The stories of these 4 women exemplify the experiences of hundreds of women who worked as computers, mathematicians, and engineers at NACA beginning in the 1930s and the handmade calculations that they made played an integral role in—

(A) aircraft testing during World War II;

(B) supersonic flight research;

(C) sending the Voyager probes to explore the solar system; and

(D) the United States landing the first man on the lunar surface.

SEC. 3. CONGRESSIONAL GOLD MEDALS.

(a) PRESENTATION AUTHORIZED.—The Speaker of the House of Representatives and the President pro tempore of the Senate shall make appropriate arrangements for the presentation, on behalf of Congress, of 5 gold medals of appropriate design as follows:

(1) One gold medal to Katherine Johnson in recognition of her service to the United States as a mathematician.

(2) One gold medal to Dr. Christine Darden for her service to the United States as an aeronautical engineer.

(3) In recognition of their service to the United States during the Space Race—

(A) 1 gold medal commemorating the life of Dorothy Vaughan; and

(B) 1 gold medal commemorating the life of Mary Jackson.

(4) One gold medal in recognition of all women who served as computers, mathematicians, and engineers at the National Advisory Committee for Aeronautics and the National Aeronautics and Space Administration between the 1930s and the 1970s (referred to in this section as ''recognized women'').

(b) DESIGN AND STRIKING.—For the purpose of the awards under subsection (a), the Secretary of the Treasury (referred to in this Act as the ''Secretary'') shall strike each gold medal described in that subsection with suitable emblems, devices, and inscriptions, to be determined by the Secretary.

(c) TRANSFER OF CERTAIN MEDALS AFTER PRESENTATION.—

(1) SMITHSONIAN INSTITUTION.—

(A) IN GENERAL.—After the award of the gold medal commemorating the life of Dorothy Vaughan under subsection (a)(3)(A) and the award of the gold medal in recognition of recognized women under subsection (a)(4), those medals shall be given to the Smithsonian Institution where the medals shall be—

(i) available for display, as appropriate; and

(ii) made available for research.

(B) SENSE OF CONGRESS.—It is the sense of Congress that the Smithsonian Institution should make the gold medals received under subparagraph (A) available for—

(i) display, particularly at the National Museum of African American History and Culture; or

(ii) loan, as appropriate, so that the medals may be displayed elsewhere.

(2) TRANSFER TO FAMILY.—After the award of the gold medal in honor of Mary Jackson under sub-

section (a)(3)(B), the medal shall be given to her granddaughter, Wanda Jackson.

SEC. 4. DUPLICATE MEDALS.

Under regulations that the Secretary may promulgate, the Secretary may strike and sell duplicates in bronze of the gold medals struck under this Act, at a price sufficient to cover the cost of the medals, including labor, materials, dies, use of machinery, and overhead expenses.

SEC. 5. STATUS OF MEDALS.

(a) NATIONAL MEDALS.—The medals struck under this Act are national medals for purposes of chapter 51 of title 31, United States Code.

(b) NUMISMATIC ITEMS.—For purposes of sections 5134 and 5136 of title 31, United States Code, all medals struck under this Act shall be considered to be numismatic items.

SEC. 6. AUTHORITY TO USE FUND AMOUNTS; PROCEEDS OF SALE.

(a) AUTHORITY TO USE FUND AMOUNTS.—There is authorized to be charged against the United States Mint Public Enterprise Fund such amounts as may be necessary to pay for the costs of the medals struck under this Act.

(b) PROCEEDS OF SALE.—Amounts received from the sale of duplicate bronze medals authorized under section

4 shall be deposited into the United States Mint Public Enterprise Fund.

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