

115TH CONGRESS
2D SESSION

S. 3321

To award Congressional Gold Medals to Katherine Johnson and Dr. Christine Darden and to posthumously award Congressional Gold Medals to Dorothy Vaughan and Mary Jackson in recognition of their contributions to the success of the National Aeronautics and Space Administration during the Space Race.

IN THE SENATE OF THE UNITED STATES

AUGUST 1, 2018

Mr. COONS (for himself, Ms. MURKOWSKI, Ms. HARRIS, Mrs. CAPITO, Mr. MARKEY, Ms. WARREN, Mr. CARPER, Ms. KLOBUCHAR, Ms. HASSAN, Mr. ALEXANDER, Mr. PETERS, Mr. WHITEHOUSE, Mr. WYDEN, Mr. DURBIN, Mr. MERKLEY, Ms. SMITH, Mr. ISAKSON, Mr. REED, Ms. COLLINS, Mr. JONES, Mr. MANCHIN, Mr. KAINE, Mrs. MURRAY, Mr. VAN HOLLEN, Ms. HEITKAMP, Ms. CORTEZ MASTO, Mr. CASEY, Mrs. GILLIBRAND, Mrs. SHAHEEN, Mrs. MCCASKILL, Mr. BLUMENTHAL, Ms. HIRONO, Mr. KING, Mr. NELSON, Mr. BLUNT, Mr. WARNER, Mr. SANDERS, Ms. BALDWIN, Mr. RUBIO, Mrs. FEINSTEIN, Mr. KENNEDY, Mr. SCOTT, Mrs. HYDE-SMITH, Mr. MENENDEZ, Mr. BOOKER, Mr. PORTMAN, and Mr. BURR) introduced the following bill; which was read twice and referred to the Committee on Banking, Housing, and Urban Affairs

A BILL

To award Congressional Gold Medals to Katherine Johnson and Dr. Christine Darden and to posthumously award Congressional Gold Medals to Dorothy Vaughan and Mary Jackson in recognition of their contributions to the success of the National Aeronautics and Space Administration during the Space Race.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Hidden Figures Con-
5 gressional Gold Medal Act”.

6 **SEC. 2. FINDINGS.**

7 Congress finds the following:

8 (1) Katherine Johnson was born on August 26,
9 1918, in White Sulphur Springs, West Virginia.

10 (2) In 1953, Katherine Johnson began her ca-
11 reer in aeronautics as a “computer” in the seg-
12 regated West Area Computing unit of the National
13 Advisory Committee for Aeronautics (referred to in
14 this section as “NACA”).

15 (3) As a member of the Flight Research Divi-
16 sion, Katherine Johnson analyzed data from flight
17 tests. After NACA was reformulated into the Na-
18 tional Aeronautics and Space Administration (re-
19 ferred to in this section as “NASA”), Johnson—

20 (A) calculated the trajectory for Alan
21 Shepard’s Freedom 7 mission in 1961, which
22 was the first human spaceflight by an indi-
23 vidual from the United States;

24 (B) coauthored a report that provided the
25 equations for describing orbital spaceflight with

1 a specified landing point, which made her the
2 first woman to be recognized as an author of a
3 report from the Flight Research Division;

4 (C) was asked to verify the calculations
5 when electronic computers at NASA were used
6 to calculate the orbit for John Glenn's Friend-
7 ship 7 mission; and

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

11 (4) Katherine Johnson retired from NASA in
12 1986.

13 (5) Dr. Christine Darden was born on Sep-
14 tember 10, 1942, in Monroe, North Carolina.

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

18 (7) Dr. Christine Darden attended Virginia
19 State University, where she studied aerosol physics
20 and earned an M.S. in Applied Mathematics.

21 (8) Dr. Christine Darden began her career in
22 aeronautics in 1967 as a data analyst at NASA's
23 Langley Research Center (referred to in this section
24 as "Langley") before being promoted to aerospace
25 engineer in 1973. Her work in this position resulted

1 in the production of low-boom sonic effects, which
2 revolutionized aerodynamics design.

3 (9) Dr. Christine Darden completed her edu-
4 cation by earning a Ph.D. in Mechanical Engineer-
5 ing from George Washington University in 1983.

6 (10) While at NASA, Dr. Christine Darden—

7 (A) was appointed to be the leader of the
8 Sonic Boom Team, which worked on designs to
9 minimize the effects of sonic booms by testing
10 wing and nose designs for supersonic aircraft;

11 (B) wrote more than 50 articles on aero-
12 nautics design; and

13 (C) became the first African-American to
14 be promoted to a position in the Senior Execu-
15 tive Service at Langley.

16 (11) Dorothy Vaughan was born on September
17 20, 1910, in Kansas City, Missouri.

18 (12) Dorothy Vaughan began working for
19 NACA in 1943. Vaughan—

20 (A) started as a member of the West Area
21 Computing unit;

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

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

4 (13) Dorothy Vaughan retired from NASA in
5 1971 and died on November 10, 2008.

6 (14) Mary Jackson was born on April 9, 1921,
7 in Hampton, Virginia.

8 (15) Jackson started her career at NACA in
9 1951, working as a “computer” as a member of the
10 West Area Computing unit.

11 (16) After petitioning the City of Hampton to
12 allow her to take graduate-level courses in math and
13 physics at night at the all-White Hampton High
14 School, Jackson was able to complete the required
15 training to become an engineer, making her NASA’s
16 first female African-American engineer.

17 (17) Jackson—

18 (A) at NACA and NASA—

19 (i) worked in the Theoretical Aero-
20 dynamics Branch of the Subsonic-Tran-
21 sonic Aerodynamics Division at Langley,
22 where she analyzed wind tunnel and air-
23 craft flight data; and

24 (ii) published a dozen technical papers
25 throughout her career, focused on the

1 boundary layer of air around airplanes;
2 and

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

9 (18) Mary Jackson retired from NASA in 1985
10 and died in 2005.

11 (19) These 4 women, along with the other Afri-
12 can-American women in NASA's West Area Com-
13 puting unit, were integral to the success of the early
14 space program.

15 **SEC. 3. CONGRESSIONAL GOLD MEDAL.**

16 (a) PRESENTATION AUTHORIZED.—The Speaker of
17 the House of Representatives and the President pro tem-
18 pore of the Senate shall make appropriate arrangements
19 for the presentation, on behalf of Congress, of 4 gold med-
20 als of appropriate design as follows:

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

1 (2) One gold medal to Dr. Christine Darden,
2 for her service to the United States as an aero-
3 nautical engineer.

4 (3) In recognition of their service to the United
5 States during the Space Race, 2 gold medals to com-
6 memorate the lives of—

7 (A) Dorothy Vaughan; and

8 (B) Mary Jackson.

9 (b) DESIGN AND STRIKING.—For the purpose of the
10 awards referred to in subsection (a), the Secretary of the
11 Treasury (referred to in this Act as the “Secretary”) shall
12 strike each gold medal described in that subsection with
13 suitable emblems, devices, and inscriptions to be deter-
14 mined by the Secretary.

15 (c) TRANSFER OF CERTAIN MEDALS AFTER PRES-
16 ENTATION.—

17 (1) SMITHSONIAN INSTITUTION.—

18 (A) IN GENERAL.—Following the award of
19 the gold medal in honor of Dorothy Vaughan
20 under subsection (a)(3)(A), the medal shall be
21 given to the Smithsonian Institution, where the
22 medal shall be available for display as appro-
23 priate and made available for research.

24 (B) SENSE OF CONGRESS.—It is the sense
25 of Congress that the Smithsonian Institution

1 should make the gold medal received under sub-
2 paragraph (A) available for—

3 (i) display, particularly at the Na-
4 tional Museum of African American His-
5 tory and Culture; or

6 (ii) loan, as appropriate, so that the
7 medal may be displayed elsewhere.

8 (2) TRANSFER TO FAMILY.—Following the
9 award of the gold medal in honor of Mary Jackson
10 under subsection (a)(3)(B), the medal shall be given
11 to her family.

12 **SEC. 4. DUPLICATE MEDALS.**

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

18 **SEC. 5. STATUS OF MEDALS.**

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

22 (b) NUMISMATIC ITEMS.—For purposes of sections
23 5134 and 5136 of title 31, United States Code, all medals
24 struck under this Act shall be considered to be numismatic
25 items.

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

3 (a) **AUTHORITY TO USE FUND AMOUNTS.**—There is
4 authorized to be charged against the United States Mint
5 Public Enterprise Fund such amounts as may be nec-
6 essary to pay for the costs of the medals struck under
7 this Act.

8 (b) **PROCEEDS OF SALE.**—Amounts received from the
9 sale of duplicate bronze medals authorized under section
10 4 shall be deposited into the United States Mint Public
11 Enterprise Fund.

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