

119TH CONGRESS
2D SESSION

S. 5165

To authorize the Office of Polar Programs of the National Science Foundation, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JULY 29, 2026

Mr. SULLIVAN (for himself, Ms. MURKOWSKI, and Mr. HICKENLOOPER) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To authorize the Office of Polar Programs of the National Science Foundation, and for other purposes.

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 “Promoting Operational
5 Leadership in Arctic and Antarctic Research Act” or the
6 “POLAR Act”.

7 **SEC. 2. DEFINITIONS.**

8 In this Act:

1 (1) ANTARCTICA.—The term “Antarctica” has
2 the meaning given the term in section 3 of the Ant-
3 arctic Conservation Act of 1978 (16 U.S.C. 2402).

4 (2) ANTARCTIC TREATY.—The term “Antarctic
5 Treaty” means the Antarctic Treaty signed in
6 Washington, DC, on December 1, 1959 (12 UST
7 794).

8 (3) ARCTIC.—The term “Arctic” has the mean-
9 ing given the term in section 112 of the Arctic Re-
10 search and Policy Act of 1984 (15 U.S.C. 4111).

11 (4) ASSISTANT DIRECTOR.—The term “Assist-
12 ant Director” means the Assistant Director respon-
13 sible for the management of the Directorate ap-
14 pointed under section 6(a).

15 (5) BOARD.—The term “Board” means the Na-
16 tional Science Board.

17 (6) DIRECTOR.—The term “Director” means
18 the Director of the Foundation.

19 (7) FOUNDATION.—The term “Foundation”
20 means the National Science Foundation.

21 (8) INDIAN TRIBE.—The term “Indian Tribe”
22 has the meaning given the term in section 4 of the
23 Indian Self-Determination and Education Assistance
24 Act (25 U.S.C. 5304).

1 (9) POLAR REGIONS.—The term “polar re-
2 gions” means the Arctic and Antarctica.

3 (10) POLAR RESEARCH AND DEVELOPMENT.—
4 The term “polar research and development” means
5 basic and applied research, science, engineering, de-
6 velopment, or experimentation conducted in, near, or
7 related to, the polar regions.

8 (11) WORKFORCE DEVELOPMENT.—The term
9 “workforce development” means science, technology,
10 engineering, and mathematics education, training,
11 and capacity-building to meet workforce demands in
12 the polar regions.

13 **SEC. 3. ESTABLISHMENT.**

14 There is established within the Foundation the Direc-
15 torate for Polar Programs (referred to in this Act as the
16 “Directorate”) to advance polar research and develop-
17 ment, education, workforce development, and research in-
18 frastructure to—

19 (1) expand fundamental knowledge of polar sys-
20 tems and processes;

21 (2) advance innovative solutions relating to the
22 polar regions;

23 (3) improve understanding of the interactions
24 between the polar regions and global systems; and

1 (4) use the unique characteristics of the polar
2 regions as a science-observing platform.

3 **SEC. 4. PURPOSES.**

4 The purposes of the Directorate are to—

5 (1) promote scientific polar research and devel-
6 opment;

7 (2) advance engineering, education, and work-
8 force development in and about the polar regions;

9 (3) facilitate access to the polar regions and
10 work with the United States military and other Fed-
11 eral agencies to provide the necessary logistical sup-
12 port for research;

13 (4) support research infrastructure, including
14 permanent year-round research stations, numerous
15 field camps across the polar regions, and research
16 vessels operating around the polar regions;

17 (5)(A) manage and maintain the United States
18 Antarctic Program at a level providing an active and
19 influential presence in Antarctica designed to sup-
20 port the range of United States Antarctic interests,
21 as determined by Presidential Memorandum 6646
22 (relating to United States Antarctic policy and pro-
23 grams), issued February 5, 1982; and

24 (B) support the commitment of the United
25 States to the Antarctic Treaty;

1 (6) coordinate all United States science in Ant-
2 arctica;

3 (7) manage and maintain an active and influen-
4 tial presence in the Arctic to support the range of
5 United States Arctic interests, as determined by ap-
6 propriate national and international bodies, agree-
7 ments, and policies;

8 (8) facilitate engagement with local and indige-
9 nous peoples in Arctic research, education, and out-
10 reach activities;

11 (9) chair, or designate a representative to chair,
12 the Interagency Arctic Research Policy Committee,
13 in accordance with section 107 of the Arctic Re-
14 search and Policy Act of 1984 (15 U.S.C. 4107);
15 and

16 (10) facilitate research and infrastructure devel-
17 opment in Greenland in accordance with the Agree-
18 ment between the United States and Denmark
19 Amending and Supplementing the Agreement of
20 April 27, 1951, signed at Igaliku on August 6, 2004
21 (commonly known as the “Igaliku Agreement”), and
22 the Agreement on Enhancing International Arctic
23 Scientific Cooperation for work in the Arctic and
24 Greenland, signed at Fairbanks, Alaska on May 11,
25 2017.

1 **SEC. 5. ACTIVITIES.**

2 Subject to the availability of appropriated funds, the
 3 Director, acting through the Directorate, shall achieve the
 4 purposes described in section 4 through the use of awards
 5 or authorities described in section 9 that—

6 (1) support creative and innovative polar re-
 7 search and development, education, and workforce
 8 development in the Arctic, including incorporating
 9 indigenous knowledge and co-production of knowl-
 10 edge with Indian Tribes, to—

11 (A) gain a better understanding of the
 12 Arctic’s biological, geophysical, chemical, and
 13 sociocultural processes and the interactions of
 14 ocean, land, atmosphere, biological, and human
 15 systems; and

16 (B) build capacity in the United States
 17 workforce for polar research and development;

18 (2)(A) support infrastructure in the Arctic
 19 through coordination of logistics and facilities, in-
 20 cluding at field locations throughout the Arctic (in-
 21 cluding at least 1 location in Alaska) and an appro-
 22 priate number of vessels capable of supporting and
 23 conducting Arctic research;

24 (B) promote the development and sustainment
 25 of infrastructure, long-term observational systems,
 26 and research capabilities in the Arctic to advance

1 polar research and development, education, environ-
2 mental prediction, national strategic interests, and
3 workforce development in the Arctic; and

4 (C) support long-term Arctic observing, moni-
5 toring, and data collection systems, including atmos-
6 pheric, oceanic, terrestrial, cryospheric, and perma-
7 frost observing networks, necessary to improve fore-
8 casting, infrastructure resilience, navigation safety,
9 national security awareness, and the understanding
10 of Earth system processes;

11 (3) advance cutting-edge polar research and de-
12 velopment, education, and workforce development
13 that—

14 (A) improves understanding of interactions
15 among the polar regions and global systems;

16 (B) expands fundamental knowledge of the
17 systems, biota, and processes of the polar re-
18 gions;

19 (C) utilizes the unique characteristics of
20 the polar regions as a science-observing plat-
21 form;

22 (D) builds capacity in the United States
23 workforce for polar research and development;
24 and

1 (E) improves collaborations among re-
2 search institutions;

3 (4)(A) provide the operational and logistical
4 platform for the United States to conduct world-
5 class science in Antarctica and maintain an active
6 and influential presence on the continent; and

7 (B) coordinate with, and, as needed and on a
8 cost-reimbursable basis, draw upon the logistical
9 support capabilities of, Federal, military, and com-
10 mercial partners working together to execute a sup-
11 ply chain to provide personnel with everything need-
12 ed to live, work, and conduct science in the polar re-
13 gions, including air operations, maritime support,
14 and land capabilities;

15 (5)(A) advance polar region safety and health
16 through activities such as industrial hygiene and
17 safety activities and oversight of the occupational
18 health and medical system for programs in polar re-
19 gions to ensure public health and improvement; and

20 (B) support a streamlining of safety initiatives
21 in polar regions; and

22 (6) support the interest of the United States in
23 the Arctic and Antarctica through representation,
24 active engagement, and performing other duties in

1 accordance with relevant national and international
2 bodies, treaties, and agreements.

3 **SEC. 6. ASSISTANT DIRECTOR.**

4 (a) IN GENERAL.—The Director shall appoint an As-
5 sistant Director responsible for the management of the Di-
6 rectorate in the same manner as other assistant directors
7 of the Foundation are appointed.

8 (b) QUALIFICATIONS.—The Assistant Director shall
9 be an individual who, by reason of professional back-
10 ground and experience, is specially qualified to—

11 (1) advise the Director on all matters per-
12 taining to polar research and development; and

13 (2) develop and implement the necessary poli-
14 cies and procedures to promote polar research and
15 development across the Foundation and carry out
16 the responsibilities under subsection (c).

17 (c) RESPONSIBILITIES.—The responsibilities of the
18 Assistant Director shall include—

19 (1) advising the Director on all matters per-
20 taining to polar research and development;

21 (2) approving all new programs within the Di-
22 rectorate;

23 (3) coordinating polar research and develop-
24 ment, infrastructure planning, observational sys-
25 tems, logistics, and operational support across Fed-

1 eral agencies, including the Department of Defense,
2 the National Oceanic and Atmospheric Administra-
3 tion, the Department of Energy, the National Aero-
4 nautics and Space Administration, the Coast Guard,
5 and other relevant agencies;

6 (4) coordinating polar research and develop-
7 ment with partner countries;

8 (5) developing and implementing merit-review
9 models and mechanisms for selecting and providing
10 awards for polar research and development at dif-
11 ferent scales, from individual investigator awards to
12 large multi-institution collaborations;

13 (6) assessing the success of the programs of the
14 Directorate;

15 (7) administering awards to achieve the pur-
16 poses described in section 4;

17 (8) providing regular briefings to the Board on
18 the status of polar regions infrastructure and the
19 alignment of awards under section 9 with the focus
20 areas identified under section 8; and

21 (9) performing other such duties pertaining to
22 such purposes as are required by the Director.

23 (d) RELATIONSHIP.—The Assistant Director shall re-
24 port to the Director.

1 (e) RELATIONSHIP TO OTHER PROGRAMS.—No other
2 directorate within the Foundation shall report to the As-
3 sistant Director.

4 **SEC. 7. ADVISORY COMMITTEE.**

5 (a) IN GENERAL.—In accordance with chapter 10 of
6 title 5, United States Code, the Director shall establish
7 an advisory committee (referred to in this section as the
8 “advisory committee”) to assess, and make recommenda-
9 tions regarding, the activities carried out under this Act.

10 (b) MEMBERSHIP.—The members of the advisory
11 committee shall—

12 (1) be individuals with relevant experience or
13 expertise, including educators, academic subject mat-
14 ter experts, individuals from industry and national
15 labs, members of Indian Tribes, representatives of
16 civil society, and representatives of other nongovern-
17 mental organizations; and

18 (2) consist of not less than 10 members broadly
19 representative of stakeholders.

20 (c) RESPONSIBILITIES.—The responsibilities of the
21 advisory committee shall include—

22 (1) reviewing and advising on activities carried
23 out under this Act;

24 (2) proposing strategies for fulfilling the pur-
25 poses described in section 4;

1 (3) proposing potential areas of research rel-
2 evant to polar challenges; and

3 (4) other relevant duties, as determined by the
4 Director.

5 **SEC. 8. FOCUS AREAS.**

6 (a) IN GENERAL.—In consultation with the Assistant
7 Director, the Board, and the advisory committee estab-
8 lished under section 7, the Director shall identify, and an-
9 nually review and update as appropriate, a list of—

10 (1) polar research and development, education,
11 and workforce development investment priorities
12 under this Act; and

13 (2) necessary infrastructure and logistical sup-
14 port needed to appropriately carry out polar re-
15 search and development, education, and workforce
16 development under this Act.

17 (b) INITIAL FOCUS OF POLAR REGIONS RESEARCH
18 AND INFRASTRUCTURE INVESTMENTS.—The initial focus
19 of polar regions research and infrastructure investments
20 shall be—

21 (1) research and associated research infrastruc-
22 ture investments that maintain, strengthen, and en-
23 hance the ability of the United States to observe,
24 understand, and predict the physical, biological, geo-

1 logic, and socioeconomic processes and interacting
2 systems of the Arctic to—

3 (A) protect and advance the interests of
4 the United States and ensure prosperity of the
5 United States Arctic residents;

6 (B) strengthen Alaska’s role as the pri-
7 mary Arctic research, logistics, operations, and
8 workforce development hub for the United
9 States; and

10 (C) strengthen existing associated re-
11 search, research infrastructure, and workforce
12 development in other States and territories;

13 (2) research and associated research infrastruc-
14 ture investments that maintain, strengthen, and en-
15 hance the ability of the United States to observe,
16 understand, and predict the physical, biological, geo-
17 logic, and socioeconomic processes and interacting
18 systems of Antarctica to protect and advance the in-
19 terests of the United States under the Antarctic
20 Treaty;

21 (3) polar research and development that en-
22 sures the uncontested navigation and strategic utili-
23 zation by the United States of the Arctic; and

1 (4) polar research and development that en-
2 sures the United States dominance in Antarctica
3 under the Antarctic Treaty.

4 **SEC. 9. AWARDS AND AUTHORITIES.**

5 (a) IN GENERAL.—The Director may carry out the
6 activities described in section 5—

7 (1) by awarding or entering into grants, cooper-
8 ative agreements, fellowships, scholarships, or infra-
9 structure awards under subsection (b); or

10 (2) by exercising, for purposes of this Act, any
11 of the authorities provided to the Foundation under
12 the National Science Foundation Act of 1950 (42
13 U.S.C. 1861 et seq.) for the purposes of that Act.

14 (b) AWARDS.—

15 (1) IN GENERAL.—From amounts made avail-
16 able for the Directorate and on a competitive basis,
17 the Director shall make awards described in sub-
18 section (a)(1) for polar research and development,
19 education and workforce development, infrastruc-
20 ture, and logistical support that carry out the activi-
21 ties described in section 5 by advancing polar re-
22 search and development, education and workforce
23 development, infrastructure, and logistical invest-
24 ments that are aligned with the focus areas identi-
25 fied under section 8.

1 (2) RECIPIENTS.—Recipients of awards under
2 this subsection may include, as determined appro-
3 prium by the Director—

4 (A) institutions of higher education (as
5 such term is defined in section 102 of the High-
6 er Education Act of 1965 (20 U.S.C. 1002));

7 (B) research institutions;

8 (C) nonprofit organizations;

9 (D) private sector entities;

10 (E) Indian Tribes;

11 (F) consortia; and

12 (G) other entities that the Director deter-
13 mines further the purposes of this Act.

14 (3) METRICS.—The Director may—

15 (A) set metrics, including goals and dead-
16 lines, for awards made under this subsection;
17 and

18 (B) use such metrics to determine whether
19 an award recipient shall be eligible for contin-
20 ued or additional funding.

21 **SEC. 10. REPORTING.**

22 (a) IN GENERAL.—The Director, in consultation with
23 other Federal agencies, as appropriate, shall prepare and
24 submit an annual report to Congress describing—

1 (1)(A) the focus areas identified under section
2 8, for the period covered by the report, for polar re-
3 search and development, education, workforce devel-
4 opment, infrastructure investments, and logistical
5 support in the polar regions; and

6 (B) the rationale for their identification;

7 (2) potential future investments needed to ad-
8 vance polar research and development, education,
9 workforce development, infrastructure, and logistical
10 support in the polar regions; and

11 (3) the role of the Foundation in advancing the
12 interests of the United States in polar regions.

13 (b) DETAILED DESCRIPTION.—For each fiscal year,
14 the Director, in coordination with the Director of the Of-
15 fice of Management and Budget, shall—

16 (1) submit, as part of the annual budget re-
17 quests to Congress, a detailed description of the ac-
18 tivities to be funded under this Act; and

19 (2) include, at a minimum, separate budget
20 lines for—

21 (A) Arctic research as described in section
22 5(1);

23 (B) Arctic infrastructure as described in
24 section 5(2);

1 (C) Arctic research as described in section
2 5(3);

3 (D) Antarctica research as described in
4 section 5(3); and

5 (E) Antarctica infrastructure as described
6 in section 5(4).

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