

119TH CONGRESS  
1ST SESSION

# S. 318

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## AN ACT

To require a plan to improve the cybersecurity and telecommunications of the U.S. Academic Research Fleet, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Accelerating Net-  
3 working, Cyberinfrastructure, and Hardware for Oceanic  
4 Research Act” or the “ANCHOR Act”.

5 **SEC. 2. DEFINITIONS.**

6 In this Act:

7 (1) **DIRECTOR.**—The term “Director” means  
8 the Director of the National Science Foundation.

9 (2) **OCEANOGRAPHIC RESEARCH VESSEL.**—The  
10 term “oceanographic research vessel” has the mean-  
11 ing given the term in section 2101 of title 46,  
12 United States Code.

13 (3) **U.S. ACADEMIC RESEARCH FLEET.**—The  
14 term “U.S. Academic Research Fleet” means the  
15 United States flagged vessels that—

16 (A) have been accepted into, and are active  
17 participants administered within, the Univer-  
18 sity-National Oceanographic Laboratory Sys-  
19 tem;

20 (B) are operated as oceanographic research  
21 vessels by research universities and laboratories;

22 (C) receive funding from the National  
23 Science Foundation; and

24 (D) have achieved designation as a mem-  
25 ber vessel of the fleet through a standard eval-  
26 uation process.

1 **SEC. 3. PLAN TO IMPROVE CYBERSECURITY AND TELE-**  
2 **COMMUNICATIONS OF U.S. ACADEMIC RE-**  
3 **SEARCH FLEET.**

4 (a) IN GENERAL.—Not later than 1 year after the  
5 date of enactment of this Act, the Director shall, in con-  
6 sultation with the head of any Federal agency, university,  
7 or laboratory that owns or operates a vessel of the U.S.  
8 Academic Research Fleet, submit to the Committee on  
9 Commerce, Science, and Transportation of the Senate and  
10 the Committee on Science, Space, and Technology of the  
11 House of Representatives a plan to improve the cybersecu-  
12 rity and telecommunications of the U.S. Academic Re-  
13 search Fleet.

14 (b) ELEMENTS.—The plan required by subsection (a)  
15 shall include—

16 (1) an assessment of the telecommunications  
17 and networking needs of the U.S. Academic Re-  
18 search Fleet, consistent with the typical scientific  
19 missions of the vessels of such fleet;

20 (2) in consultation with the Cybersecurity and  
21 Infrastructure Security Agency and the National In-  
22 stitute of Standards and Technology, an assessment  
23 of cybersecurity needs appropriate for—

24 (A) the ownership of vessels within the  
25 U.S. Academic Research Fleet; and

26 (B) the scientific missions of such vessels;

1           (3) an assessment of the costs necessary to  
2 meet the needs described in paragraphs (1) and (2),  
3 including—

4           (A) any necessary equipment, such as sat-  
5 ellite communications equipment, software,  
6 high-performance computing clusters shipboard  
7 and shoreside, or enterprise hardware; and

8           (B) estimated personnel costs in excess of  
9 current expenditures, including any necessary  
10 training, support, or logistics;

11          (4) an assessment of the time required to im-  
12 plement any upgrades required to meet the needs  
13 described in paragraphs (1) and (2) under varying  
14 budgets and funding scenarios;

15          (5) the adoption of common solutions or  
16 consortial licensing agreements, or by centralizing  
17 elements of fleet cybersecurity, telecommunications,  
18 or data management at a single facility; and

19          (6) in consultation with any non-Federal owners  
20 of a vessel of the U.S. Academic Research Fleet, a  
21 spending plan for the National Science Foundation,  
22 the Office of Naval Research, non-Federal owners of  
23 vessels of the U.S. Academic Research Fleet, users  
24 of the U.S. Academic Research Fleet, or any com-

1        bination thereof, to provide funding to cover the  
2        costs described in paragraph (3).

3        (c) CONSIDERATIONS.—The Director shall, in pre-  
4        paring the plan required by subsection (a), consider—

5            (1) the network capabilities, including speed  
6            and bandwidth targets, necessary to meet the sci-  
7            entific mission needs of each class of vessels of the  
8            U.S. Academic Research Fleet for such purposes  
9            as—

10            (A) executing the critical functions and  
11            communications of the vessels;

12            (B) providing network access to conduct  
13            medical care via telemedicine or related crisis  
14            response care;

15            (C) as necessary to meet operations,  
16            uploading any scientific data to a shoreside  
17            server, including the copying of data off ship  
18            for disaster recovery or risk mitigation pur-  
19            poses;

20            (D) as appropriate, conducting real-time  
21            streaming to enable shore-based observers to  
22            participate in ship-based maintenance or re-  
23            search activities; and

24            (E) real-time coordinated viewing of—

1 (i) scientific instrumentation so that it  
2 is possible to conduct scientific surveys and  
3 seafloor mapping with fully remote subject-  
4 matter experts; and

5 (ii) critical operational technology by  
6 manufacturers and vendors so that it is  
7 possible to carry out maintenance and re-  
8 pairs to systems with limited expertise on  
9 the vessel, with fully remote subject-matter  
10 experts advising; and

11 (2) in consultation with the Director of the Cy-  
12 bersecurity and Infrastructure Security Agency, the  
13 Director of the National Institute of Standards and  
14 Technology, and the heads of other Federal agen-  
15 cies, as appropriate—

16 (A) the cybersecurity recommendations in  
17 the report of the private scientific advisory  
18 group known as JASON entitled “Cybersecurity  
19 at NSF Major Facilities” (JSR-21-10E) and  
20 dated October 2021 as applied to the U.S. Aca-  
21 demic Research Fleet;

22 (B) standards and guidance for informa-  
23 tion security, including the use of encryption for  
24 sensitive information, the detection and han-

1            dling of security incidents, and other areas de-  
2            termined relevant by the Director;

3            (C) facilitating access to cybersecurity per-  
4            sonnel and training of research and support  
5            personnel; and

6            (D) the requirements for controlled unclas-  
7            sified or classified information.

Passed the Senate October 8, 2025.

Attest:

*Secretary.*

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