

119TH CONGRESS
1ST SESSION

S. 318

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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