

119TH CONGRESS  
1ST SESSION

# H. R. 1223

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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. PLAN TO IMPROVE CYBERSECURITY AND TELE-**  
6 **COMMUNICATIONS OF U.S. ACADEMIC RE-**  
7 **SEARCH FLEET.**

8       (a) IN GENERAL.—Not later than 18 months after  
9 the date of the enactment of this Act, the Director, in con-  
10 sultation with other Federal agency owners and the head  
11 of any university or laboratory that owns or operates a  
12 vessel of the U.S. Academic Research Fleet, shall submit  
13 to the Committee on Commerce, Science, and Transpor-  
14 tation of the Senate and the Committee on Science, Space,  
15 and Technology of the House of Representatives a plan  
16 to improve the cybersecurity and telecommunications of  
17 the U.S. Academic Research Fleet.

18       (b) ELEMENTS.—The plan required by subsection (a)  
19 shall include—

20           (1) an assessment of the telecommunications  
21 and networking needs of the U.S. Academic Re-  
22 search Fleet, consistent with the typical scientific  
23 mission of each vessel;

24           (2) in accordance with guidance issued by the  
25 Cybersecurity and Infrastructure Security Agency  
26 and the National Institute for Standards and Tech-

1 nology, an assessment of cybersecurity needs appro-  
2 priate for—

3 (A) the operation of vessels within the U.S.  
4 Academic Research Fleet; and

5 (B) the specific research functions and ac-  
6 tivities of such vessels;

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

10 (A) any necessary equipment costs in ex-  
11 cess of current expenditures, such as satellite  
12 communications equipment, software, high-per-  
13 formance computing infrastructure shipboard  
14 and shoreside, or enterprise hardware;

15 (B) estimated personnel costs in excess of  
16 current expenditures, including any necessary  
17 training, support, or logistics; and

18 (C) the estimated impact on daily charter  
19 rates associated with the costs described in sub-  
20 paragraphs (A) and (B);

21 (4) an assessment of the time required to im-  
22 plement any upgrades required to meet the needs  
23 described in paragraphs (1) and (2) under varying  
24 budgets and funding scenarios;

1           (5) an assessment of opportunities for the adop-  
2           tion of common solutions or consortial licensing  
3           agreements, or for the centralization of elements of  
4           fleet cybersecurity, telecommunications, or data  
5           management at a single facility; and

6           (6) in consultation with any non-Federal owners  
7           of a vessel of the U.S. Academic Research Fleet, a  
8           spending plan for the National Science Foundation,  
9           the Office of Naval Research, non-Federal owners of  
10          vessels of the U.S. Academic Research Fleet, users  
11          of the U.S. Academic Research Fleet, or any com-  
12          bination thereof, to provide funding to cover the  
13          costs described in paragraph (3).

14          (c) CONSIDERATIONS.—The Director in preparing  
15          the plan required by subsection (a), shall, as appropriate,  
16          consider the following:

17               (1) The network capabilities, including speed  
18               and bandwidth targets, necessary to meet the sci-  
19               entific mission needs of each class of vessel within  
20               the U.S. Academic Research Fleet for such purposes  
21               as—

22                       (A) executing the critical functions and  
23                       communications of each vessel;

24                       (B) providing network access for the  
25                       health and well-being of deployed personnel, in-

cluding communications to conduct telemedicine (including mental health care), counseling, interviews with crisis response providers, and other remote individual care and services;

(C) as necessary to meet operations, uploading any scientific data to a cloud-based server or shoreside server, including the copying of data off ship for disaster recovery or risk mitigation purposes;

(D) conducting real-time streaming to enable shore-based observers to participate in ship-based maintenance or research activities;

(E) scientific instrumentation so that it is possible to conduct scientific surveys and seafloor mapping with fully remote subject matter experts;

(F) critical operational technology by manufacturers and vendors so that it is possible to carry out maintenance and repairs to systems with limited expertise on each vessel, with fully remote subject matter experts advising; and

(G) enabling video communications to allow improved outreach to, and other educational services for, K–12 students, including occasional remote classroom teaching for in-

1           structors at sea to improve oceanographic ac-  
2           cess for students.

3           (2) In consultation with the Director of the Cy-  
4           bersecurity and Infrastructure Security Agency, the  
5           Director of the National Institute for Standards and  
6           Technology, and the heads of other Federal agen-  
7           cies, as appropriate—

8                   (A) the cybersecurity recommendations in  
9                   the report of the private scientific advisory  
10                  group known as JASON entitled “Cybersecurity  
11                  at NSF Major Facilities” (JSR–21–10E) and  
12                  dated October 2021 as applied to the U.S. Aca-  
13                  demic Research Fleet;

14                  (B) aligning with international standards  
15                  and guidance for information security, including  
16                  the use of encryption for sensitive information,  
17                  the detection and handling of security incidents,  
18                  and other areas determined relevant by the Di-  
19                  rector;

20                  (C) facilitating access to cybersecurity per-  
21                  sonnel and training of research and support  
22                  personnel; and

23                  (D) the requirements for controlled unclas-  
24                  sified or classified information.

25           (d) IMPLEMENTATION OF AND REPORT ON PLAN.—

1           (1) IN GENERAL.—The Director, in coordina-  
2           tion with the Office of Naval Research, non-Federal  
3           owners of vessels of the Academic Research Fleet,  
4           users of the U.S. Academic Research Fleet, or any  
5           combination thereof, may support upgrades to the  
6           cyberinfrastructure and cybersecurity of the U.S.  
7           Academic Research Fleet consistent with the plan  
8           required by subsection (a).

9           (2) REPORT REQUIRED.—Not later than two  
10          years after the submission of the plan required by  
11          subsection (a), the Director shall submit to the Com-  
12          mittee on Commerce, Science, and Transportation of  
13          the Senate and the Committee on Science, Space,  
14          and Technology of the House of Representatives a  
15          report describing the progress made in implementing  
16          the plan.

17       (e) DEFINITIONS.—In this section:

18           (1) DIRECTOR.—The term “Director” means  
19           the Director of the National Science Foundation.

20           (2) OCEANOGRAPHIC RESEARCH VESSEL.—The  
21           term “oceanographic research vessel” has the mean-  
22           ing given the term in section 2101 of title 46,  
23           United States Code.

1           (3) U.S. ACADEMIC RESEARCH FLEET.—The  
2       term “U.S Academic Research Fleet” means the  
3       United States-flagged vessels that—

4           (A) are operated as oceanographic research  
5       vessels by research universities and laboratories;

6           (B) have achieved designation as a member  
7       vessel of the U.S. Academic Research Fleet  
8       through the standard U.S. Academic Research  
9       Fleet evaluation process; and

10          (C) have been accepted into, and are active  
11       participants within, the University-National  
12       Oceanographic Laboratory System.

Passed the House of Representatives May 20, 2025.

Attest:

*Clerk.*





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