

ACCELERATING NETWORKING, CYBERINFRASTRUCTURE,  
AND HARDWARE FOR OCEANIC RESEARCH ACT

MAY 23, 2024.—Committed to the Committee of the Whole House on the State of  
the Union and ordered to be printed

Mr. LUCAS, from the Committee on Science, Space, and Technology,  
submitted the following

R E P O R T

[To accompany H.R. 7630]

The Committee on Science, Space, and Technology, to whom was  
referred the bill (H.R. 7630) to require a plan to improve the cyber-  
security and telecommunications of the U.S. Academic Research  
Fleet, and for other purposes, having considered the same, reports  
favorably thereon without amendment and recommends that the  
bill do pass.

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PURPOSE AND SUMMARY

H.R. 7630 directs the Director of the National Science Founda-  
tion (NSF) to submit to Congress a plan to improve the cybersecu-  
rity and telecommunications of the Academic Research Fleet. Spe-

cifically, this bill tasks the Director to consider network capabilities for both the scientific mission and critical functions of each vessel including video communications for educational outreach and remote access for researchers.

#### BACKGROUND AND NEED FOR LEGISLATION

The U.S. Academic Research Fleet was established in the 1960s and is made up of eighteen research vessels that conduct federally-sponsored basic research that address urgent societal issues involving human health and safety, offshore energy and resources, national security, ocean hazards, biological and physical ocean processes, and all scientific endeavors requiring observations at sea. Operating as globally-ranging laboratories in the most remote areas of the world, these vessels face unique challenges in providing reliable and secure digital networking and communications that are critical to accomplishing scientific objectives. Each vessel requires specialized infrastructure to ensure the security of scientific equipment and data both on-board and in transmission to shoreside networks.

Currently, the U.S. Academic Research Fleet cannot support the cyberinfrastructure necessary to establish and maintain necessary levels of secure telecommunications. This is supported by the findings of the JASON advisory group, which was commissioned by the National Science Foundation to evaluate and make recommendations regarding the ability of the agency's major facilities to provide high-quality data to the research community while mitigating cybersecurity threats. This legislation would provide a plan to make the necessary upgrades to the cyberinfrastructure and cybersecurity of the research vessels to meet current standards.

#### LEGISLATIVE HISTORY

H.R. 7630 was introduced on March 12, 2024, by Representative Garcia (R-CA) and cosponsored by Representative Stevens (D-MI).

#### SECTION-BY-SECTION

##### *Section 1. Short title*

The short title of this legislation is “Accelerating Networking, Cyberinfrastructure, and Hardware for Oceanic Research Act” of the “ANCHOR Act.”

##### *Section 2. Definitions*

This section defines “U.S. Academic Research Fleet” as United States-flagged vessels that have been accepted into, and are actively participants administered within, the University-National Oceanographic Laboratory System; are operated as oceanographic research vessels by research universities and laboratories; receive funding from the National Science Foundation; and have achieved designation as a member vessel of the U.S. Academic Research Fleet through the standard U.S. Academic Research Fleet evaluation process.

*Section 3. Plan to improve cybersecurity and telecommunications of U.S. Academic Research Fleet*

This section requires the NSF Director to submit to congress a plan to improve the cybersecurity and telecommunications of the Academic Research Fleet. The plan includes: the networking needs for the vessels scientific mission, cybersecurity needs appropriate for ownership of vessels withing the U.S. academic fleet and the type of research functions and topics of those vessels, estimated costs necessary to complete the upgrade including necessary equipment's including satellite communication, software, high performance computing clusters, enterprise hardware, personnel costs for training, support, or logistics, and the time required to complete the upgrade under various budget scenarios, a proposal for common solutions and licensing agreements for the scientific fleet. This section also requires the NSF Director to consider network and bandwidth targets for all necessary vessel functions including scientific outreach and remote scientific work.

*Section 4. Implementation of and report on plan*

This section directs the NSF Director to develop a report in support of cyberinfrastructure and cybersecurity upgrades, in coordination with the Office of Naval Research, nonfederal owners of vessels in the academic research fleet, and users of the research fleet. The report is required no later than 2 years after the submission of the plan required in section 3.

RELATED COMMITTEE HEARINGS

On April 26, 2023, the Committee on Science, Space, and Technology held a full committee hearing entitled *An Overview of the National Science Foundation Budget Proposal for Fiscal Year 2024*. Members and witnesses discussed the fiscal year 2024 budget request for the National Science Foundation and related policy and management issues; including the construction and operation of cutting-edge research facilities and investment into STEM education.

Witnesses:

- Dr. Sethuraman Panchanathan, Director, National Science Foundation
- Dr. Dan Reed, Chair, National Science Board

COMMITTEE CONSIDERATION

On March 20, 2024, the Committee on Science, Space, and Technology met to consider H.R. 7630.

Chairman Lucas moved that Committee favorably report the bill, H.R. 7630 to the House of Representatives with the recommendation that the bill be approved. The motion was agreed to by a recorded vote of 38 yeas and 0 nays, a quorum being present.

ROLL CALL VOTES

Clause 3(b) of rule XIII requires the Committee to list the record votes on the motion to report legislation and amendments thereto. The following reflects the record votes taken during the Committee consideration:

House Committee on Science, Space, and Technology  
118th Congress  
Full Committee Markup

Bill # HR 7630

Motion to report HR 7630 to the House

| Majority                     | Aye       | No       | Present |
|------------------------------|-----------|----------|---------|
| Frank Lucas, Oklahoma        | 1         |          |         |
| Bill Posey, Florida          | 1         |          |         |
| Randy Weber, Texas           | 1         |          |         |
| Brian Babin, Texas           | 1         |          |         |
| Jim Baird, Indiana           | 1         |          |         |
| Daniel Webster, Florida      | 1         |          |         |
| Mike Garcia, California      | 1         |          |         |
| Stephanie Bice, Oklahoma     | 1         |          |         |
| Jay Obernolte, California    | 1         |          |         |
| Chuck Fleischmann, Tennessee | 1         |          |         |
| Darrell Issa, California     |           |          |         |
| Rick Crawford, Arkansas      | 1         |          |         |
| Claudia Tenney, New York     | 1         |          |         |
| Ryan Zinke, Montana          | 1         |          |         |
| Scott Franklin, Florida      | 1         |          |         |
| Dale Strong, Alabama         | 1         |          |         |
| Max Miller, Ohio             | 1         |          |         |
| Rich McCormick, Georgia      | 1         |          |         |
| Mike Collins, Georgia        | 1         |          |         |
| Brandon Williams, New York   | 1         |          |         |
| Tom Kean, New Jersey         | 1         |          |         |
|                              |           |          |         |
| Minority                     | Aye       | No       | Present |
| Zoe Lofgren, California      | 1         |          |         |
| Suzanne Bonamici, Oregon     | 1         |          |         |
| Haley Stevens, Michigan      | 1         |          |         |
| Jamaal Bowman, New York      | 1         |          |         |
| Deborah Ross, New Carolina   | 1         |          |         |
| Eric Sorensen, Illinois      | 1         |          |         |
| Andrea Salinas, Oregon       | 1         |          |         |
| Val Foushee, North Carolina  | 1         |          |         |
| Kevin Mullin, California     | 1         |          |         |
| Jeff Jackson, North Carolina | 1         |          |         |
| Emilia Sykes, Ohio           | 1         |          |         |
| Maxwell Frost, Florida       | 1         |          |         |
| Yadira Caraveo, Colorado     | 1         |          |         |
| Summer Lee, Pennsylvania     | 1         |          |         |
| Jennifer McClellan, Virginia | 1         |          |         |
| Gabe Amo, Rhode Island       | 1         |          |         |
| Sean Casten, Illinois        | 1         |          |         |
| Paul Tonko                   | 1         |          |         |
|                              |           |          |         |
| <b>Total</b>                 | <b>38</b> | <b>0</b> |         |

Date: 3/20/24

| Result?    | Agreed To: [ X ]     |      |         |
|------------|----------------------|------|---------|
|            | Not Agreed To: [   ] |      |         |
|            | Withdrawn: [   ]     |      |         |
| Voice Vote | Ayes                 | Nays | Present |
|            | 38                   | 0    |         |

## APPLICATION OF LAW TO THE LEGISLATIVE BRANCH

The Committee finds that H.R. 7630 does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

STATEMENT OF OVERSIGHT FINDINGS AND RECOMMENDATIONS  
OF THE COMMITTEE

In compliance with clause 3(c)(1) of rule XIII and clause (2)(b)(1) of rule X, the Committee's oversight findings and recommendations are reflected in the descriptive portions of this report.

## STATEMENT OF GENERAL PERFORMANCE GOALS AND OBJECTIVES

Pursuant to clause (3)(c)(4) of rule XIII, the goal of H.R. 7630 is to direct the Director of the National Science Foundation (NSF) to submit to Congress a plan to improve the cybersecurity and telecommunications of the Academic Research Fleet. Specifically, the Director is to consider network capabilities for both the scientific mission and critical functions of each vessel including video communications for educational outreach and remote access for researchers.

## DUPLICATION OF FEDERAL PROGRAMS

Pursuant to clause 3(c)(5) of rule XIII, the Committee finds that no provision of H.R. 7630 establishes or reauthorizes a program of the Federal Government known to be duplicative of another Federal program, including any program that was included in a report to Congress pursuant to section 21 of Public Law 111–139 or identified in the most recent Catalog of Federal Domestic Assistance.

## FEDERAL ADVISORY COMMITTEE ACT

The Committee finds that the legislation does not establish or authorize the establishment of an advisory committee within the definition of section 5(b) of the Federal Advisory Committee Act.

## UNFUNDED MANDATE STATEMENT

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act.

## EARMARK IDENTIFICATION

Pursuant to clauses 9(e), 9(f), and 9(g) of rule XXI, the Committee finds that H.R. 7630 does not include any congressional earmarks, limited tax benefits, or limited tariff benefits.

## COMMITTEE COST ESTIMATE

Pursuant to clause 3(d)(1) of rule XIII, the Committee adopts as its own the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974. At the time this report was filed, the estimate was not yet available.

NEW BUDGET AUTHORITY, ENTITLEMENT AUTHORITY,  
AND TAX EXPENDITURES

Pursuant to clause 3(c)(2) of rule XIII, the Committee finds that H.R. 7630 would result in no new or increased budget authority, entitlement authority, or tax expenditures or revenues.

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

Pursuant to clause 3(c)(3) of rule XIII, at the time this report was filed, the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974 was not yet available.

