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(Original Signature of Member)

119TH CONGRESS
1ST SESSION

H. R. _____

To establish within the National Oceanic and Atmospheric Administration a research program comprising global ocean monitoring and observing, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

M__. _____ introduced the following bill; which was referred to the Committee on _____

A BILL

To establish within the National Oceanic and Atmospheric Administration a research program comprising global ocean monitoring and observing, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''NOAA Global Ocean Monitoring and Observing Research Act''.

SEC. 2. NOAA GLOBAL OCEAN MONITORING AND OBSERVING RESEARCH PROGRAM.

(a) IN GENERAL.—The Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration (referred to in this section as the ''Administrator''), shall establish within the National Oceanic and Atmospheric Administration a research program comprising global ocean monitoring and observing (in this section referred to as the ''program'').

(b) PURPOSE.—The program shall provide high quality global ocean environmental data and information to improve scientific understanding and knowledge to advance capabilities and services for climate, weather, and ocean needs that support the National Oceanic and Atmospheric Administration's mission to monitor and observe the global environment in order to protect lives and property from extreme weather and other natural phenomena by carrying out the following:

(1) Developing and improving sustained global in-situ ocean monitoring and observing systems capable of systematically collecting ocean environmental data to support ocean, weather, and climate research, including by leading the development of the global One-Argo system.

(2) Supporting basic and applied research, including the utilization of public and private partner-

ships to test and evaluate innovative and improved ocean observation technologies to address emerging research needs and support the scientific understanding of ocean health, ocean economy, weather, environment, and climate.

(3) Improving the findability, accessibility, interoperability, quality, usability, and reusability of environmental and observational data and research products to carry out the following:

(A) Collecting critical baseline ocean measurements.

(B) Strengthening public understanding of marine and ocean research.

(C) Meeting the national needs for the research community.

(4) Undertaking interdisciplinary earth-system research, and coordinated interagency activities to improve understanding of the physical, chemical, and marine ecological features of the ocean, including the following:

(A) Ocean heat content and temperature.

(B) Arctic ocean changes, including sea ice and marine ecosystem monitoring and prediction.

(C) Ocean carbon and biogeochemistry.

(D) Any other research the Administrator determines appropriate;

(5) In collaboration with the U.S. Integrated Ocean Observing System, the National Data Buoy Center, and the National Oceanographic Partnership Program, ensuring coordination of ocean observing research and relevant activities with other appropriate Federal departments and agencies, State and local governments, regional partners, academic institutions, nongovernmental organizations, private sector entities, and international ocean science and observing bodies, including the Global Ocean Observing System.

(6) Accelerating development and enhancement of ocean observing technologies for forecasting improvements of hurricane intensity, atmospheric rivers, and other extreme weather events.

(7) Building research capacity and increasing the use of autonomous observing systems to fill gaps in the coverage of observations in critical areas of the ocean.

(8) Integrating artificial intelligence and cloud technologies to optimize data use, as practical.

(9) Developing best practices for interactions with the ocean-coastal monitoring and observing

science community, including strategies to foster competition and avoid sole sources for critical components and data.

(c) FRAMEWORK AND REVIEW.—

(1) FRAMEWORK.—Not later than one year after the date of the enactment of this Act, the Administrator shall develop a framework for prioritized monitoring and observational activities for research and metrics to measure progress in data quantity, quality, and management. In developing such framework, the Administrator shall identify and consult with users of the program's environmental data.

(2) REVIEW.—Not later than one year after the date of the enactment of this Act, the Administrator shall implement a process for an annual review of activities carried out by the program. Such reviews shall include assessments of the quality and efficiency of the systems and data developed under the program.

(d) FINANCIAL ASSISTANCE.—

(1) IN GENERAL.—The program may provide to academic institutions, cooperative institutions, private sector entities, and other entities the Administrator determines appropriate financial assistance in the form of contracts, grants, or cooperative agree-

ments for research projects to carry out the purposes described in subsection (b).

(2) REQUIREMENTS.—Financial assistance under paragraph (1) shall be awarded on a competitive, merit-based process.

(e) DEFINITION.—In this section, the term ''artificial intelligence''—

(1) has the meaning given such term in section 5002 of the National Artificial Intelligence Initiative Act of 2020 (15 U.S.C. 9401); and

(2) includes machine learning, neutral networks, and natural language processing.