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(Original Signature of Member)

119TH CONGRESS  
1ST SESSION

**H. R.** \_\_\_\_\_

To require the evaluation of certain criteria relating to locations for deployment of successor radar systems of the National Weather Service, and for other purposes.

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IN THE HOUSE OF REPRESENTATIVES

Mr. MOORE of North Carolina introduced the following bill; which was referred to the Committee on \_\_\_\_\_

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**A BILL**

To require the evaluation of certain criteria relating to locations for deployment of successor radar systems of the National Weather Service, 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,*

3 **SECTION 1. RADAR NEXT PROGRAM.**

4 (a) IN GENERAL.—The Under Secretary of Com-  
5 merce for Oceans and Atmosphere, in consultation with  
6 the Director of the National Weather Service, shall estab-  
7 lish a program to be known as the “Radar Next Program”  
8 (in this section referred to as the “program”).

1 (b) REQUIREMENTS.—In carrying out the program,  
2 the Under Secretary of Commerce for Oceans and Atmos-  
3 phere shall carry out the following:

4 (1) Develop performance and coverage require-  
5 ments for the weather radar network of the United  
6 States, including the territories of the United States.

7 (2) Collaborate with the weather enterprise (as  
8 such term is defined in section 2 of the Weather Re-  
9 search and Forecasting Innovation Act of 2017 (15  
10 U.S.C. 8501)) to determine potential solutions to  
11 update the weather radar network of the United  
12 States that meets the requirements developed under  
13 paragraph (1).

14 (3) Develop a plan in accordance with sub-  
15 section (c).

16 (c) PLAN.—

17 (1) IN GENERAL.—The Under Secretary of  
18 Commerce for Oceans and Atmosphere shall develop  
19 a plan to replace the Next Generation Weather  
20 Radar of the National Weather Service system in ex-  
21 istence as of the date of the enactment of this Act  
22 (in this subsection referred to as the “NEXRAD  
23 system”).

24 (2) ELEMENTS.—The plan developed under this  
25 subsection shall seek to continue and improve weath-

1 er radar coverage in the United States and its terri-  
2 tories, and include the following:

3 (A) Estimates of quantifiable improve-  
4 ments in performance, coverage, and accuracy  
5 to be made from potential options for replace-  
6 ment of the NEXRAD system.

7 (B) Development of a proof-of-concept  
8 phased array radar to test and determine the  
9 specifications and requirements for such re-  
10 placement.

11 (C) Expected actions needed to implement  
12 the recommendations of the report published by  
13 the Environmental Information Services Work-  
14 ing Group of the Science Advisory Board of the  
15 National Oceanic and Atmospheric Administra-  
16 tion in November 2023 and entitled “A  
17 NESDIS Observing System Backbone Frame-  
18 work” to assist in defining a radar backbone  
19 architecture that will best serve the United  
20 States.

21 (D) Establishment of a weather surveil-  
22 lance radar testbed for the following:

23 (i) Evaluation of commercial radars  
24 with the potential to replace or supplement  
25 the NEXRAD system.

1 (ii) Providing technical assistance for  
2 the use of small, gap-filling radars with  
3 private and local partners in regions where  
4 geographical topography prevents the full  
5 use of large systems or in locations where  
6 such systems may not be commercially via-  
7 ble.

8 (E) Consultation and input solicited from  
9 academia, meteorologists, emergency managers,  
10 and public safety or utility officials regarding  
11 the specifications and requirements for replace-  
12 ment of the NEXRAD system.

13 (F) Prioritized locations for initial deploy-  
14 ment of the system that will replace the  
15 NEXRAD system.

16 (G) Expected locations of the system that  
17 will replace the NEXRAD system, including  
18 sites located more than 75 miles away from an  
19 existing NEXRAD system station and addi-  
20 tional appropriate locations.

21 (H) Expected or planned improvements to  
22 data available for weather and water-related  
23 forecasts and warnings from the system that  
24 will replace the NEXRAD system.

1           (3) PROCUREMENT DEADLINE.—The Under  
2           Secretary of Commerce for Oceans and Atmosphere  
3           shall take such actions as may be necessary to en-  
4           sure the plan developed under this subsection is fully  
5           implemented and executed by not later than Sep-  
6           tember 30, 2040.

7           (d) RADAR-AS-A-SERVICE.—

8           (1) IN GENERAL.—The Under Secretary of  
9           Commerce for Oceans and Atmosphere may partner  
10          or contract with entities outside of the National Oce-  
11          anic and Atmospheric Administration to fill data  
12          gaps in weather radar coverage using diverse weath-  
13          er radars and data assimilation technologies in order  
14          to accomplish the following:

15               (A) Supplement data gaps in weather  
16               radar coverage, including at low levels and wide  
17               areas, in existence as of the date of the enact-  
18               ment of this Act.

19               (B) Ensure the continued performance of  
20               the United States' weather radar network.

21               (C) Better detect significant precipitation  
22               and severe weather over a greater area across  
23               a population.

1           (2) CONSIDERATIONS.—In carrying out para-  
2           graph (1), the Under Secretary of Commerce for  
3           Oceans and Atmosphere may consider the following:

4                   (A) Partnering or contracting with entities  
5                   that have participated in the testbed described  
6                   in subsection (c)(2)(D), the National Mesonet  
7                   Program, or Cooperative Research and Develop-  
8                   ment Agreements.

9                   (B) Weather camera systems and services,  
10                  including in consultation with the Federal Avia-  
11                  tion Administration, as viable technologies to  
12                  supplement weather forecasting and prediction  
13                  needs.

14          (e) UPDATES TO CONGRESS.—The Under Secretary  
15          of Commerce for Oceans and Atmosphere shall provide to  
16          the Committee on Science, Space, and Technology of the  
17          House of Representatives and the Committee on Com-  
18          merce, Science, and Transportation of the Senate periodic  
19          updates on the implementation of this section.