

**Calendar No. 259**118TH CONGRESS  
1ST SESSION**S. 1416**

To provide guidance for and investment in the upgrade and modernization of the National Oceanic and Atmospheric Administration Weather Radio All Hazards network, and for other purposes.

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**IN THE SENATE OF THE UNITED STATES**

MAY 3, 2023

Ms. CANTWELL (for herself and Mr. CRUZ) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

DECEMBER 4, 2023

Reported by Ms. CANTWELL, without amendment

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**A BILL**

To provide guidance for and investment in the upgrade and modernization of the National Oceanic and Atmospheric Administration Weather Radio All Hazards network, 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 “NOAA Weather Radio  
3 Modernization Act of 2023” or the “NWR Modernization  
4 Act of 2023”.

5 **SEC. 2. DEFINITIONS.**

6 (a) NOAA WEATHER RADIO.—The term “NOAA  
7 Weather Radio” means the National Oceanic and Atmos-  
8 pheric Administration Weather Radio All Hazards net-  
9 work.

10 (b) UNDER SECRETARY.—The term “Under Sec-  
11 retary” means the Under Secretary of Commerce for  
12 Oceans and Atmosphere and the Administrator of the Na-  
13 tional Oceanic and Atmospheric Administration.

14 **SEC. 3. UPGRADING EXISTING SYSTEMS.**

15 (a) IN GENERAL.—The Under Secretary shall, to the  
16 maximum extent practicable, upgrade systems of NOAA  
17 Weather Radio in use as of the date of the enactment of  
18 this Act in order to expand coverage and ensure the reli-  
19 ability of NOAA Weather Radio.

20 (b) REQUIREMENTS.—In carrying out subsection (a),  
21 the Under Secretary shall—

22 (1) maintain support for systems described in  
23 such subsection that serve areas not covered by or  
24 having poor quality cellular service;

1           (2) ensure consistent maintenance and oper-  
2           ations monitoring, with timely repairs to equipment  
3           and antennas at broadcast transmitter sites;

4           (3) enhance the ability to amplify non-weather  
5           emergency messages through NOAA Weather Radio  
6           as necessary; and

7           (4) acquire additional transmitters as required  
8           to expand coverage to rural and underserved com-  
9           munities, units of the National Park System, and  
10          National Recreation Areas.

11 **SEC. 4. MODERNIZATION INITIATIVE.**

12          (a) **IN GENERAL.**—The Under Secretary shall, to the  
13          maximum extent practicable, modernize NOAA Weather  
14          Radio to ensure the capabilities and coverage of NOAA  
15          Weather Radio remain valuable to the public.

16          (b) **REQUIREMENTS.**—In carrying out subsection (a),  
17          the Under Secretary shall—

18               (1) upgrade the telecommunications infrastruc-  
19               ture of NOAA Weather Radio to accelerate the tran-  
20               sition of broadcasts to media that provide an in-  
21               crease in reliability and repairability over copper  
22               media;

23               (2) accelerate software upgrades to the Ad-  
24               vanced Weather Interactive Processing System of  
25               the National Weather Service, or any relevant suc-

1 cessors of the system, in order to implement partial  
2 county notifications and alerts;

3 (3) enhance the accessibility and usability of  
4 data and feeds of NOAA Weather Radio, with the  
5 feedback of the public and user groups;

6 (4) develop options, including satellite backup  
7 capability and commercial provider partnerships, for  
8 continuity of service provided by NOAA Weather  
9 Radio in the event of outages among Weather Fore-  
10 cast Offices;

11 (5) research and develop alternative options, in-  
12 cluding microwave capabilities, to transmit signals  
13 from NOAA Weather Radio to transmitters that are  
14 remote or do not have Internet Protocol capability;  
15 and

16 (6) transition critical applications to the Inte-  
17 grated Dissemination Program of the National  
18 Weather Service, or any relevant successors of the  
19 program.

20 (c) PRIORITIES.—In carrying out subsections (a) and  
21 (b), the Under Secretary shall prioritize practices, capa-  
22 bilities, and technologies recommended in the assessment  
23 required by subsection (d) in order to maximize the acces-  
24 sibility of NOAA Weather Radio, particularly in remote  
25 areas of the United States and areas that are at risk for

1 a lack of access to weather information in the event of  
2 an emergency weather event.

3 (d) ASSESSMENT.—

4 (1) IN GENERAL.—Not later than 1 year after  
5 the date of the enactment of this Act, the Under  
6 Secretary shall complete and submit to the Com-  
7 mittee on Commerce, Science, and Transportation of  
8 the Senate and the Committee on Science, Space,  
9 and Technology of the House of Representatives an  
10 assessment of access to NOAA Weather Radio.

11 (2) CONSIDERATIONS AND RECOMMENDA-  
12 TIONS.—In conducting the assessment required by  
13 paragraph (1), the Under Secretary shall take into  
14 consideration and provide recommendations on—

15 (A) the need for continuous, adequate, and  
16 operational real-time broadcasts from NOAA  
17 Weather Radio;

18 (B) solicited input on the compatibility of  
19 NOAA Weather Radio data with third-party  
20 platforms that provide online services, such as  
21 websites and mobile device applications, or de-  
22 liver access to NOAA Weather Radio;

23 (C) existing or new management systems,  
24 which promote consistent, efficient, and com-  
25 patible access to NOAA Weather Radio;

1           (D) the ability of the National Oceanic and  
2           Atmospheric Administration to aggregate real-  
3           time broadcast feeds at one or more central lo-  
4           cations;

5           (E) effective coordination between agencies  
6           with responsibilities relating to emergencies and  
7           natural disasters;

8           (F) the potential effects of an electro-  
9           magnetic pulse or geomagnetic disturbance on  
10          NOAA Weather Radio; and

11          (G) improvements of hazardous weather  
12          and water event communications to more clear-  
13          ly inform action and increase the likelihood that  
14          the public takes such action to prevent the loss  
15          of life or property.



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