

Calendar No. 268

114TH CONGRESS
1ST SESSION**S. 1573****[Report No. 114–154]**

To establish regional weather forecast offices, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 15, 2015

Mr. THUNE introduced the following bill; which was read twice and referred
to the Committee on Commerce, Science, and Transportation

OCTOBER 19, 2015

Reported by Mr. THUNE, with an amendment and an amendment to the title
[Strike out all after the enacting clause and insert the part printed in *italic*]

A BILL

To establish regional weather forecast offices, 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. SHORT TITLE.**

4 This Act may be cited as the “National Weather
5 Service Improvement Act”.

1 **SEC. 2. NATIONAL WEATHER SERVICE.**

2 (a) **ORGANIZATION.**—The Administrator of the Na-
3 tional Oceanic and Atmospheric Administration, through
4 the National Weather Service, shall develop a plan for es-
5 tablishing 6 regional weather forecast offices.

6 (b) **PLAN CONTENTS.**—The plan under subsection
7 (a) shall—

8 (1) whenever possible, prioritize locating a re-
9 gional weather forecast office together with—

10 (A) an institution of higher education (as
11 defined in section 101 of the Higher Education
12 Act of 1965 (20 U.S.C. 1001)) with an active
13 meteorology department; or

14 (B) a State or Federal department or
15 agency;

16 (2) incorporate risk communication and deci-
17 sion support experts in the staffing model;

18 (3) ensure that local forecast quality will not be
19 degraded;

20 (4) to the extent practicable, incorporate the
21 best available science when determining schedules
22 for employees on shift work in order to minimize
23 stress on those employees, while providing sufficient
24 flexibility to temporarily increase staffing during se-
25 vere weather events;

1 (5) provide sufficient training to minimize em-
 2 ployee displacement as a consequence of the plan;
 3 and

4 (6) ensure that each regional weather forecast
 5 office has on staff the expertise necessary to forecast
 6 the severe weather events typical for the region.

7 (c) NATIONAL RESEARCH COUNCIL PLAN REVIEW.—

8 The Secretary of Commerce shall contract with the Na-
 9 tional Research Council of the National Academy of
 10 Sciences—

11 (1) to conduct a review of the scientific and
 12 technical soundness of the plan developed under sub-
 13 section (a), including—

14 (A) an evaluation of the proposed staffing
 15 model;

16 (B) an assessment of the statistical and
 17 analytical measures that should be made for a
 18 service area to form an adequate basis for de-
 19 termining that there will be no degradation of
 20 service; and

21 (C) such recommendations as the National
 22 Research Council considers necessary for public
 23 safety purposes; and

1 (2) to submit the review under paragraph (1) to
 2 the Secretary not later than 1 year after the date of
 3 enactment of this Act.

4 (d) ~~PLAN IMPLEMENTATION.~~—Not later than 1 year
 5 after the date of submission of the review under subsection
 6 (e)(2), the Administrator of the National Oceanic and At-
 7 mospheric Administration, through the National Weather
 8 Service, shall implement the plan under subsection (a),
 9 taking into consideration the recommendations of the Na-
 10 tional Research Council under subsection (e)(1)(C).

11 (e) ~~REGIONAL WEATHER FORECAST OFFICES.~~—

12 (1) ~~ESTABLISHMENT.~~—

13 (A) ~~FIRST REGIONAL WEATHER FORECAST~~
 14 ~~OFFICE.~~—Not later than 3 years after the date
 15 of enactment of this Act, the first regional
 16 weather forecast office shall be established.

17 (B) ~~REMAINING REGIONAL WEATHER~~
 18 ~~FORECAST OFFICES.~~—Except as provided in
 19 subparagraph (A), each regional weather fore-
 20 cast office shall be established not later than 5
 21 years after the date of enactment of this Act.

22 (2) ~~FORECAST CENTRALIZATION.~~—Not later
 23 than 6 months after the date that each regional
 24 weather forecast office is established under para-
 25 graph (1), the Secretary of Commerce shall transfer

the weather forecast functions, along with necessary staff, from each applicable weather forecast office to adequately staff the regional weather forecast office.

(f) WARNING COORDINATION METEOROLOGISTS.—

(1) IN GENERAL.—The National Weather Service shall hire or retain at least 1 warning coordination meteorologist at each weather forecast office.

(2) RESPONSIBILITIES.—A warning coordination meteorologist shall—

(A) be responsible for providing service to the geographic area of responsibility that was previously covered by a weather forecast office before the date of enactment of this Act;

(B) interface with users of National Weather Service products and services, such as the public, media outlets, users in the aviation, marine, and agricultural communities, and forestry, land, and water management interests, to evaluate the adequacy and usefulness of the products and services;

(C) collaborate with the appropriate regional weather forecast office and State, local, and tribal government agencies, as applicable, in developing, proposing, and implementing plans to develop, modify, or tailor National

1 Weather Service products and services to im-
2 prove their usefulness;

3 (D) ensure the maintenance and accuracy
4 of severe weather call lists; appropriate office
5 severe weather policy or procedures; and other
6 severe weather or dissemination methodologies
7 or strategies;

8 (E) work closely with State, local, and trib-
9 al emergency management agencies; and other
10 agencies related to disaster management; to en-
11 sure a planned, coordinated, and effective pre-
12 paredness effort; and

13 (F) whenever possible, be located together
14 with State or local emergency managers.

15 ~~(3)~~ **ADDITIONAL RESPONSIBILITIES.**—A warn-
16 ing coordination meteorologist may—

17 (A) work with relevant State government
18 agencies in developing plans for promoting
19 more effective use of National Weather Service
20 products and services throughout the State;

21 (B) identify priority community prepared-
22 ness objectives;

23 (C) develop plans to meet the objectives
24 identified in subparagraph (B); and

1 ~~(D)~~ conduct severe weather event pre-
 2 paredness planning and citizen education efforts
 3 with and through various State, local, and trib-
 4 al government agencies, and other disaster
 5 management-related organizations.

6 ~~(g)~~ FORECAST INVESTMENTS AND IMPROVE-
 7 MENTS.—For at least 10 years after the date of enactment
 8 of this Act, any savings realized by the Department of
 9 Commerce by the centralization of weather forecast func-
 10 tions under subsection ~~(c)~~(2) shall be used to improve the
 11 weather forecasts produced by the National Oceanic and
 12 Atmospheric Administration, including—

13 ~~(1)~~ by expanding super-computing capacity;

14 ~~(2)~~ by investing in research to improve weather
 15 forecasts;

16 ~~(3)~~ by improving the communication of weather
 17 forecasts to the public, particularly with respect to
 18 severe weather;

19 ~~(4)~~ by obtaining ground-based observations that
 20 would improve weather forecasts; and

21 ~~(5)~~ by improving radar coverage where nec-
 22 essary, with an emphasis on high density population
 23 centers with no radar coverage.

24 ~~(h)~~ DEFINITION OF STATE.—In this section, the term
 25 “State” means a State, a territory or possession of the

1 United States, including a Commonwealth, or the District
2 of Columbia.

3 **SEC. 3. SEVERE WEATHER EVENTS COMMUNICATION.**

4 (a) PURPOSE.—For purposes of preparing the rec-
5 ommendations under subsection (b)(1)(B) and imple-
6 menting the new system under subsection (c), the purpose
7 of the National Oceanic and Atmospheric Administration
8 system for issuing severe weather watches and warnings
9 shall be to reduce the loss of life due to severe weather
10 events.

11 (b) EVALUATION.—

12 (1) IN GENERAL.—Not later than 2 years after
13 the date of enactment of this Act, the Administrator
14 of the National Oceanic and Atmospheric Adminis-
15 tration shall—

16 (A) evaluate whether the National Oceanic
17 and Atmospheric Administration system for
18 issuing severe weather watches and warnings
19 meets the purpose under subsection (a); and

20 (B) submit to Congress a report on the
21 evaluation under subparagraph (A) and rec-
22 ommendations for how the system can be im-
23 proved and for any research necessary to ad-
24 dress the areas described in paragraph (2).

1 (2) CONTENTS.—The evaluation shall focus on
2 the following areas:

3 (A) Ways to more clearly communicate to
4 the public the risks presented by a severe
5 weather event.

6 (B) Ways to more broadly disseminate a
7 severe weather watch or warning to the public.

8 (C) Ways that a severe weather watch or
9 warning could help to reduce the loss of life due
10 to an extreme weather event.

11 (3) CONSULTATION.—In developing the report,
12 the Administrator shall—

13 (A) consult with relevant line offices within
14 the National Oceanic and Atmospheric Admin-
15 istration, such as the National Ocean Service,
16 the National Weather Service, and the Office of
17 Oceanic and Atmospheric Research;

18 (B) consult with the academic sector, in-
19 cluding individuals in the field of social
20 sciences, and other weather services;

21 (C) consult with media outlets that will be
22 distributing the watches and warnings; and

23 (D) utilize the services of the National
24 Academy of Sciences, as necessary.

1 (c) IMPLEMENTATION.—Not later than 4 years after
 2 the date of enactment of this Act, and if no additional
 3 action is taken by Congress regarding the National Oceanic and Atmospheric Administration severe weather
 4 watches and warnings system, the Administrator of the
 5 National Oceanic and Atmospheric Administration shall
 6 implement, based on the evaluation and report under sub-
 7 section (a), a new system for issuing severe weather
 8 watches and warnings.

10 **SEC. 4. REPORT ON CONTRACT POSITIONS AT THE NA-**
 11 **TIONAL WEATHER SERVICE.**

12 (a) IN GENERAL.—Not later than 180 days after the
 13 date of enactment of this Act, and annually thereafter for
 14 5 fiscal years, the Administrator of the National Oceanic
 15 and Atmospheric Administration shall submit to Congress
 16 a report on the use of full-time equivalent contractors at
 17 the National Weather Service for the most recently com-
 18 pleted fiscal year.

19 (b) CONTENTS.—The report shall include—

20 (1) the total number of full-time equivalent em-
 21 ployees at the National Weather Service;

22 (2) the total number of full-time equivalent con-
 23 tractors at the National Weather Service;

1 (3) the 5 most common positions filled by full-
 2 time equivalent contractors at the National Weather
 3 Service;

4 (4) of the contract positions identified in para-
 5 graph (3); the percentage of full-time equivalent con-
 6 tractors in those positions that have held a prior po-
 7 sition at the National Weather Service or the Na-
 8 tional Oceanic and Atmospheric Administration;

9 (5) the average full-time equivalent salary for
 10 Federal employees at the National Weather Service;

11 (6) the average full-time equivalent salary for
 12 contractors at the National Weather Service; and

13 (7) a description of any actions taken by the
 14 Administrator of the National Oceanic and Atmos-
 15 pheric Administration to respond to the issues raised
 16 by the Department of Commerce Inspector General
 17 regarding the hiring of former National Oceanic and
 18 Atmospheric Administration employees as contrac-
 19 tors at the National Weather Service, such as the
 20 issues raised in the Investigative Report dated June
 21 2015 (OIG-12-0447).

22 **SECTION 1. SHORT TITLE.**

23 *This Act may be cited as the “Weather Alerts for a*
 24 *Ready Nation Act of 2015”.*

1 **SEC. 2. WARNING COORDINATION METEOROLOGISTS AT**
2 **WEATHER FORECAST OFFICES OF NATIONAL**
3 **WEATHER SERVICE.**

4 (a) *IN GENERAL.*—*The Director of the National*
5 *Weather Service shall employ at least 1 warning coordina-*
6 *tion meteorologist at each weather forecast office of the Na-*
7 *tional Weather Service.*

8 (b) *RESPONSIBILITIES.*—*Each warning coordination*
9 *meteorologist employed under subsection (a) shall—*

10 (1) *be responsible for providing service to the ge-*
11 *ographic area of responsibility covered by the weather*
12 *forecast office at which the warning coordination me-*
13 *teorologist is employed to help ensure that users of*
14 *products of the National Weather Service can respond*
15 *effectively to improve outcomes from weather events;*

16 (2) *liaise with users of products and services of*
17 *the National Weather Service, such as the public,*
18 *media outlets, users in the aviation, marine, and ag-*
19 *ricultural communities, and forestry, land, and water*
20 *management interests, to evaluate the adequacy and*
21 *usefulness of the products and services of the National*
22 *Weather Service;*

23 (3) *collaborate with such weather forecast offices*
24 *and State, local, and tribal government agencies as*
25 *the Director considers appropriate in developing, pro-*
26 *posing, and implementing plans to develop, modify,*

1 *or tailor products and services of the National Weath-*
 2 *er Service to improve the usefulness of such products*
 3 *and services;*

4 *(4) ensure the maintenance and accuracy of se-*
 5 *vere weather call lists, appropriate office severe*
 6 *weather policy or procedures, and other severe weath-*
 7 *er or dissemination methodologies or strategies; and*

8 *(5) work closely with State, local, and tribal*
 9 *emergency management agencies, and other agencies*
 10 *related to disaster management, to ensure a planned,*
 11 *coordinated, and effective preparedness effort.*

12 *(c) ADDITIONAL RESPONSIBILITIES.—A warning co-*
 13 *ordination meteorologist employed under subsection (a)*
 14 *may—*

15 *(1) work with a State agency to develop plans*
 16 *for promoting more effective use of products and serv-*
 17 *ices of the National Weather Service throughout the*
 18 *State;*

19 *(2) identify priority community preparedness*
 20 *objectives;*

21 *(3) develop plans to meet the objectives identified*
 22 *in paragraph (2); and*

23 *(4) conduct severe weather event preparedness*
 24 *planning and citizen education efforts with and*
 25 *through various State, local, and tribal government*

1 *agencies and other disaster management-related orga-*
 2 *nizations.*

3 *(d) PLACEMENT WITH STATE AND LOCAL EMERGENCY*
 4 *MANAGERS.—*

5 *(1) IN GENERAL.—In carrying out this section,*
 6 *the Director may place a warning coordination mete-*
 7 *orologist employed under subsection (a) with a State*
 8 *or local emergency manager if the Director considers*
 9 *doing so is necessary or convenient to carry out this*
 10 *section.*

11 *(2) TREATMENT.—If the Director determines*
 12 *that the placement of a warning coordination mete-*
 13 *orologist placed with a State or local emergency man-*
 14 *ager under paragraph (1) is near a weather forecast*
 15 *office of the National Weather Service, such placement*
 16 *shall be treated as employment of the warning coordi-*
 17 *nation meteorologist at such weather forecast office for*
 18 *purposes of subsection (a).*

19 *(e) DEFINITION OF STATE.—In this section, the term*
 20 *“State” means a State, a territory, or possession of the*
 21 *United States, including a Commonwealth, or the District*
 22 *of Columbia.*

1 **SEC. 3. IMPROVING NATIONAL OCEANIC AND ATMOS-**
 2 **PHERIC ADMINISTRATION COMMUNICATION**
 3 **OF HAZARDOUS WEATHER AND WATER**
 4 **EVENTS.**

5 (a) *PURPOSE OF SYSTEM.*—For purposes of the assess-
 6 ment required by subsection (b)(1)(A), the purpose of the
 7 system of the National Oceanic and Atmospheric Adminis-
 8 tration for issuing watches and warnings regarding haz-
 9 ardous weather and water events shall be risk communica-
 10 tion to the general public that informs action to prevent
 11 loss of life and property.

12 (b) *ASSESSMENT OF SYSTEM.*—

13 (1) *IN GENERAL.*—Not later than 2 years after
 14 the date of the enactment of this Act, the Adminis-
 15 trator of the National Oceanic and Atmospheric Ad-
 16 ministration shall—

17 (A) assess the system of the National Oce-
 18 anic and Atmospheric Administration for
 19 issuing watches and warnings regarding haz-
 20 ardous weather and water events; and

21 (B) submit to Congress a report on the find-
 22 ings of the Administrator with respect to the as-
 23 sessment conducted under subparagraph (A).

24 (2) *ELEMENTS.*—The assessment required by
 25 paragraph (1)(A) shall include the following:

1 (A) *An evaluation of whether the system of*
2 *the National Oceanic and Atmospheric Adminis-*
3 *tration for issuing watches and warnings regard-*
4 *ing hazardous weather and water events meets*
5 *the purpose described in subsection (a).*

6 (B) *Development of recommendations for—*

7 (i) *legislative and administrative ac-*
8 *tion to improve the system described in such*
9 *subparagraph; and*

10 (ii) *such research as the Administrator*
11 *considers necessary to address the focus*
12 *areas described in paragraph (3).*

13 (3) *FOCUS AREAS.—The assessment required by*
14 *paragraph (1)(A) shall focus on the following:*

15 (A) *Ways to communicate the risks posed by*
16 *hazardous weather or water events to the public*
17 *that are most likely to result in action to miti-*
18 *gate the risk.*

19 (B) *Ways to communicate the risks posed*
20 *by hazardous weather or water events to the pub-*
21 *lic as broadly and rapidly as practicable.*

22 (C) *Ways to preserve the benefits of the ex-*
23 *isting watches and warnings system.*

1 (D) *Ways to maintain the utility of the*
2 *watches and warnings system for Government*
3 *and commercial users of the system.*

4 (4) *CONSULTATION.—In conducting the assess-*
5 *ment required by paragraph (1)(A), the Adminis-*
6 *trator shall—*

7 (A) *consult with such line offices within the*
8 *National Oceanic and Atmospheric Administra-*
9 *tion as the Administrator considers relevant, in-*
10 *cluding the National Ocean Service, the National*
11 *Weather Service, and the Office of Oceanic and*
12 *Atmospheric Research;*

13 (B) *consult with individuals in the aca-*
14 *demie sector, including individuals in the field*
15 *of social and behavioral sciences, and other*
16 *weather services;*

17 (C) *consult with media outlets that will be*
18 *distributing the watches and warnings;*

19 (D) *consult with non-Federal forecasters*
20 *that produce alternate severe weather risk com-*
21 *munication products;*

22 (E) *consult with emergency planners and*
23 *responders, including State and local emergency*
24 *management agencies, and other government*
25 *users of the watches and warnings system, in-*

cluding the Federal Emergency Management Agency, the Office of Personnel Management, the Coast Guard, and such other Federal agencies as the Administrator determines rely on watches and warnings for operational decisions; and

(F) make use of the services of the National Academy of Sciences, as the Administrator considers necessary and practicable, including contracting with the National Research Council to review the scientific and technical soundness of the assessment required by paragraph (1)(A), including the recommendations developed under paragraph (2)(B).

(5) *METHODOLOGIES.*—In conducting the assessment required by paragraph (1)(A), the Administrator shall use such methodologies as the Administrator considers are generally accepted by the weather enterprise, including social and behavioral sciences.

(c) *IMPROVEMENTS TO SYSTEM.*—

(1) *IN GENERAL.*—The Administrator shall, based on the assessment required by subsection (b)(1)(A), take such actions as the Administrator considers necessary—

(A) subject to paragraph (2), to improve the system of the Administration for issuing watches

1 *and warnings regarding hazardous weather and*
 2 *water events; and*

3 *(B) to support efforts to satisfy research*
 4 *needs to enable future improvements to such sys-*
 5 *tem.*

6 (2) *REQUIREMENTS REGARDING MAJOR*
 7 *CHANGES.—In carrying out paragraph (1)(A), the*
 8 *Administrator shall ensure that any change to the*
 9 *system described in such paragraph that the Adminis-*
 10 *trator considers a major change—*

11 *(A) is validated by social and behavioral*
 12 *science using a generalizable sample;*

13 *(B) accounts for the needs of various demo-*
 14 *graphics, vulnerable populations, and geographic*
 15 *regions;*

16 *(C) accounts for the differences between*
 17 *types of weather and water hazards;*

18 *(D) responds to the needs of Federal, State,*
 19 *and local government partners and media part-*
 20 *ners; and*

21 *(E) accounts for necessary changes to Feder-*
 22 *ally-operated watch and warning propagation*
 23 *and dissemination infrastructure and protocols.*

24 (3) *ANNUAL REPORTS.—Not later than the date*
 25 *that is 4 years after the date of the enactment of this*

1 *Act and not less frequently than once each year there-*
 2 *after until the Administrator determines that the ac-*
 3 *tions required by paragraph (1) have been completed,*
 4 *the Administrator shall submit to Congress a report*
 5 *on the actions taken by the Administrator pursuant*
 6 *to such paragraph.*

7 (4) *FINAL REPORT.*—*Not later than the date that*
 8 *the Administrator determines that the actions re-*
 9 *quired by paragraph (1) have been completed, the Ad-*
 10 *ministrator shall submit to Congress a report that*
 11 *summarizes all of the actions taken by the Adminis-*
 12 *trator pursuant to paragraph (1).*

13 (d) *WATCHES AND WARNINGS DEFINED.*—

14 (1) *IN GENERAL.*—*Except as provided in para-*
 15 *graph (2), in this section, the term “watch” and*
 16 *“warning”, with respect to a hazardous weather and*
 17 *water event, means a product issued by the Adminis-*
 18 *tration, intended for consumption by the general pub-*
 19 *lic, to alert the general public to the potential for or*
 20 *presence of the event and to inform action to prevent*
 21 *loss of life and property.*

22 (2) *EXCEPTION.*—*In this section, the term*
 23 *“watch” and “warning” do not include technical or*
 24 *specialized meteorological and hydrological forecasts,*
 25 *outlooks, or model guidance products.*

1 **SEC. 4. REPORT ON CONTRACT POSITIONS AT NATIONAL**
2 **WEATHER SERVICE.**

3 (a) *REPORT REQUIRED.*—Not later than 180 days
4 after the date of the enactment of this Act, the Adminis-
5 trator of the National Oceanic and Atmospheric Adminis-
6 tration shall submit to Congress a report on the use of con-
7 tractors at the National Weather Service for the most re-
8 cently completed fiscal year.

9 (b) *CONTENTS.*—The report required by subsection (a)
10 shall include, with respect to the most recently completed
11 fiscal year, the following:

12 (1) *The total number of full-time equivalent em-*
13 *ployees at the National Weather Service,*
14 *disaggregated by each equivalent level of the General*
15 *Schedule.*

16 (2) *The total number of full-time equivalent con-*
17 *tractors at the National Weather Service,*
18 *disaggregated by each equivalent level of the General*
19 *Schedule that most closely approximates their duties.*

20 (3) *The total number of vacant positions at the*
21 *National Weather Service on the day before the date*
22 *of the enactment of this Act, disaggregated by each*
23 *equivalent level of the General Schedule.*

24 (4) *The 5 most common positions filled by full-*
25 *time equivalent contractors at the National Weather*
26 *Service and equivalent level of the General Schedule*

1 *that most closely approximates the duties of such po-*
2 *sitions.*

3 (5) *Of the positions identified in paragraph (4),*
4 *the percentage of full-time equivalent contractors in*
5 *those positions that have held a prior position at the*
6 *National Weather Service or another entity in the*
7 *National Oceanic and Atmospheric Administration.*

8 (6) *The average full-time equivalent salary for*
9 *Federal employees at the National Weather Service for*
10 *each equivalent level of the General Schedule.*

11 (7) *The average salary for full-time equivalent*
12 *contractors performing at each equivalent level of the*
13 *General Schedule at the National Weather Service.*

14 (8) *A description of any actions taken by the Ad-*
15 *ministrator to respond to the issues raised by the In-*
16 *spector General of the Department of Commerce re-*
17 *garding the hiring of former National Oceanic and*
18 *Atmospheric Administration employees as contractors*
19 *at the National Weather Service, such as the issues*
20 *raised in the Investigative Report dated June 2015*
21 *(OIG-12-0447).*

22 (c) *ANNUAL PUBLICATION.—For each fiscal year after*
23 *the fiscal year covered by the report required by subsection*
24 *(a), the Administrator shall, not later than 180 days after*
25 *the completion of the fiscal year, publish on a publicly ac-*

- 1 *cessible Internet website the information described in para-*
- 2 *graphs (1) through (6) of subsection (b) for such fiscal year.*

Amend the title so as to read: “A bill to improve communication from the National Weather Service regarding severe weather risks, and for other purposes.”.

Calendar No. 268

114TH CONGRESS
1ST Session

S. 1573

[Report No. 114-154]

A BILL

To establish regional weather forecast offices, and
for other purposes.

OCTOBER 19, 2015

Reported with an amendment and an amendment to the
title