

# Calendar No. 615

115<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# S. 2343

[Report No. 115–342]

To require the Federal Communications Commission to establish a task force for meeting the connectivity and technology needs of precision agriculture in the United States.

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## IN THE SENATE OF THE UNITED STATES

JANUARY 25, 2018

Mr. WICKER (for himself, Ms. KLOBUCHAR, Mr. DAINES, Mr. TESTER, Mrs. McCASKILL, Mr. GARDNER, Mr. HOEVEN, Mr. BLUNT, Ms. SMITH, Ms. BALDWIN, Mr. THUNE, Mrs. FISCHER, Mr. KING, and Ms. HEITKAMP) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

OCTOBER 2 (legislative day, SEPTEMBER 28), 2018

Reported by Mr. THUNE, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italic*]

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## A BILL

To require the Federal Communications Commission to establish a task force for meeting the connectivity and technology needs of precision agriculture in the United States.

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 “Precision Agriculture  
3 Connectivity Act of 2018”.

4 **SEC. 2. FINDINGS.**

5 Congress finds the following:

6 (1) Precision agriculture technologies and prac-  
7 tices allow farmers to significantly increase crop  
8 yields, eliminate overlap in operations, and reduce  
9 inputs such as seed, fertilizer, pesticides, water, and  
10 fuel.

11 (2) These technologies allow farmers to collect  
12 data in real time about their fields, automate field  
13 management, and maximize resources.

14 (3) Studies estimate that precision agriculture  
15 technologies can reduce agricultural operation costs  
16 by up to 25 dollars per acre and increase farm yields  
17 by up to 70 percent by 2050.

18 (4) The critical cost savings and productivity  
19 benefits of precision agriculture cannot be realized  
20 without the availability of reliable broadband Inter-  
21 net access service delivered to the cropland and  
22 rangeland of the United States.

23 (5) The deployment of broadband Internet ac-  
24 cess service to unserved and underserved cropland  
25 and rangeland is critical to the United States econ-

1 omy and to the continued leadership of the United  
2 States in global food production.

3 (6) Despite the growing demand for broadband  
4 Internet access service on cropland and rangeland,  
5 broadband Internet access service is not consistently  
6 available where needed for agricultural operations.

7 (7) The Federal Communications Commission  
8 has an important role to play in the deployment of  
9 broadband Internet access service infrastructure on  
10 unserved and underserved cropland and rangeland to  
11 promote precision agriculture.

12 **SEC. 3. TASK FORCE.**

13 (a) DEFINITIONS.—

14 (1) IN GENERAL.—In this section—

15 (A) the term “broadband Internet access  
16 service” has the meaning given the term in sec-  
17 tion 8.2 of title 47, Code of Federal Regula-  
18 tions, or any successor regulation;

19 (B) the term “Commission” means the  
20 Federal Communications Commission;

21 (C) the term “Department” means the De-  
22 partment of Agriculture;

23 (D) the term “Secretary” means the Sec-  
24 retary of Agriculture; and

1           ~~(E)~~ the term “Task Force” means the  
 2           Task Force for Meeting the Connectivity and  
 3           Technology Needs of Precision Agriculture in  
 4           the United States, as established under sub-  
 5           section (b).

6           ~~(2)~~ AGRICULTURAL TERMS.—For purposes of  
 7           this Act, the Secretary shall define the terms “agri-  
 8           cultural operations”, “cropland”, and “ranchland”.

9           ~~(b)~~ ESTABLISHMENT.—Not later than 1 year after  
 10          the date of enactment of this Act, the Commission shall  
 11          establish the Task Force for Meeting the Connectivity and  
 12          Technology Needs of Precision Agriculture in the United  
 13          States.

14          ~~(c)~~ DUTIES.—

15                 ~~(1)~~ IN GENERAL.—The Task Force shall col-  
 16          laborate with the Secretary and public and private  
 17          stakeholders in the agriculture and technology fields  
 18          to—

19                         ~~(A)~~ identify and measure current gaps in  
 20          broadband Internet access service coverage of  
 21          cropland and ranchland;

22                         ~~(B)~~ assemble a comprehensive guide of all  
 23          Federal programs or resources working to ex-  
 24          pand broadband Internet access service on  
 25          unserved cropland and ranchland;

1           (C) develop policy recommendations to pro-  
2 mote the rapid, expanded deployment of fixed  
3 and mobile broadband Internet access service  
4 on unserved croplands and rangelands, with a  
5 goal of achieving reliable service on 95 percent  
6 of croplands and rangelands in the United  
7 States by 2025;

8           (D) promote effective policy and regulatory  
9 solutions that encourage the adoption of  
10 broadband Internet access service on farms and  
11 ranches and promote precision agriculture;

12           (E) propose new rules of the Commission  
13 or amendments to existing rules of the Commis-  
14 sion to achieve the goals and purposes described  
15 in subparagraph (C);

16           (F) recommend specific steps that the  
17 Commission and other Federal agencies should  
18 take to obtain reliable and standardized data  
19 measurements of broadband Internet access  
20 service coverage as may be necessary to target  
21 funding support to unserved croplands and  
22 rangelands in need of broadband Internet ac-  
23 cess service; and

24           (G) recommend specific steps that the  
25 Commission should take to ensure that the ex-

1           expertise of the Secretary and available farm data  
2           are reflected in developing Federal programs to  
3           deploy broadband Internet access service infra-  
4           structure and to direct available funding to  
5           unserved croplands and ranchlands where need-  
6           ed.

7           (2) CONSULTATION.—The Task Force shall  
8           consult with the Secretary to develop recommenda-  
9           tions for the Commission that utilize the expertise,  
10          data mapping information, and resources of the De-  
11          partment that the Department uses to identify crop-  
12          lands, ranchlands, and other areas with agricultural  
13          operations.

14          (d) MEMBERSHIP.—The Task Force shall be—

15                (1) composed of not more than 15 members  
16                who shall—

17                        (A) be selected by the Chairman of the  
18                        Commission in consultation with appropriate  
19                        staff of the Commission and with the Secretary;  
20                        and

21                        (B) include—

22                                (i) agricultural producers representing  
23                                diverse geographic regions and farm sizes,  
24                                including owners and operators of farms of  
25                                less than 100 acres;

1 (ii) Internet service providers, includ-  
2 ing regional or rural fixed and mobile  
3 broadband Internet access service pro-  
4 viders and telecommunications infrastruc-  
5 ture providers;

6 (iii) representatives from the satellite  
7 industry;

8 (iv) representatives from precision ag-  
9 riculture equipment manufacturers, includ-  
10 ing drone manufacturers, manufacturers of  
11 autonomous agricultural machinery, and  
12 manufacturers of farming robotics tech-  
13 nologies; and

14 (v) representatives from State and  
15 local governments; and

16 (2) fairly balanced in terms of technologies,  
17 points of view, and fields represented on the Task  
18 Force.

19 (e) REPORTS.—Not later than 1 year after the date  
20 on which the Commission establishes the Task Force, and  
21 annually thereafter, the Commission shall submit to Con-  
22 gress a report that details—

23 (1) the status of fixed and mobile broadband  
24 Internet access service coverage of croplands and  
25 ranchlands;

1           (2) the projected future connectivity needs of  
2           agricultural operations, farmers, and ranchers; and

3           (3) the steps being taken to accurately measure  
4           the availability of high speed broadband Internet ac-  
5           cess service on croplands and rangelands and the  
6           limitations of current, as of the date of the report,  
7           measurement processes.

8           (f) **EXISTING FUNDS.**—The Commission shall use ex-  
9           isting funds of the Commission to carry out the Task  
10          Force and the duties of the Commission under this sec-  
11          tion.

12          (g) **TERMINATION.**—The Task Force shall terminate  
13          on January 1, 2025.

14          **SECTION 1. SHORT TITLE.**

15                 *This Act may be cited as the “Precision Agriculture*  
16                 *Connectivity Act of 2018”.*

17          **SEC. 2. FINDINGS.**

18                 *Congress finds the following:*

19                         (1) *Precision agriculture technologies and prac-*  
20                         *tices allow farmers to significantly increase crop*  
21                         *yields, eliminate overlap in operations, and reduce*  
22                         *inputs such as seed, fertilizer, pesticides, water, and*  
23                         *fuel.*

1           (2) *These technologies allow farmers to collect*  
2 *data in real time about their fields, automate field*  
3 *management, and maximize resources.*

4           (3) *Studies estimate that precision agriculture*  
5 *technologies can reduce agricultural operation costs*  
6 *by up to 25 dollars per acre and increase farm yields*  
7 *by up to 70 percent by 2050.*

8           (4) *The critical cost savings and productivity*  
9 *benefits of precision agriculture cannot be realized*  
10 *without the availability of reliable broadband Internet*  
11 *access service delivered to the agricultural land of the*  
12 *United States.*

13           (5) *The deployment of broadband Internet access*  
14 *service to unserved agricultural land is critical to the*  
15 *United States economy and to the continued leader-*  
16 *ship of the United States in global food production.*

17           (6) *Despite the growing demand for broadband*  
18 *Internet access service on agricultural land,*  
19 *broadband Internet access service is not consistently*  
20 *available where needed for agricultural operations.*

21           (7) *The Federal Communications Commission*  
22 *has an important role to play in the deployment of*  
23 *broadband Internet access service on unserved agricul-*  
24 *tural land to promote precision agriculture.*

1 **SEC. 3. TASK FORCE.**

2 (a) *DEFINITIONS.*—*In this section—*

3 (1) *the term “broadband Internet access service”*  
4 *has the meaning given the term in section 8.2 of title*  
5 *47, Code of Federal Regulations, or any successor reg-*  
6 *ulation;*

7 (2) *the term “Commission” means the Federal*  
8 *Communications Commission;*

9 (3) *the term “Department” means the Depart-*  
10 *ment of Agriculture;*

11 (4) *the term “Secretary” means the Secretary of*  
12 *Agriculture; and*

13 (5) *the term “Task Force” means the Task Force*  
14 *for Reviewing the Connectivity and Technology Needs*  
15 *of Precision Agriculture in the United States estab-*  
16 *lished under subsection (b).*

17 (b) *ESTABLISHMENT.*—*Not later than 1 year after the*  
18 *date of enactment of this Act, the Commission shall establish*  
19 *the Task Force for Reviewing the Connectivity and Tech-*  
20 *nology Needs of Precision Agriculture in the United States.*

21 (c) *DUTIES.*—

22 (1) *IN GENERAL.*—*The Task Force shall consult*  
23 *with the Secretary, or a designee of the Secretary, and*  
24 *collaborate with public and private stakeholders in*  
25 *the agriculture and technology fields to—*

1           (A) identify and measure current gaps in  
2           the availability of broadband Internet access  
3           service on agricultural land;

4           (B) develop policy recommendations to pro-  
5           mote the rapid, expanded deployment of  
6           broadband Internet access service on unserved  
7           agricultural land, with a goal of achieving reli-  
8           able capabilities on 95 percent of agricultural  
9           land in the United States by 2025;

10          (C) promote effective policy and regulatory  
11          solutions that encourage the adoption of  
12          broadband Internet access service on farms and  
13          ranches and promote precision agriculture;

14          (D) recommend specific new rules or  
15          amendments to existing rules of the Commission  
16          that the Commission should issue to achieve the  
17          goals and purposes of the policy recommenda-  
18          tions described in subparagraph (B);

19          (E) recommend specific steps that the Com-  
20          mission should take to obtain reliable and stand-  
21          ardized data measurements of the availability of  
22          broadband Internet access service as may be nec-  
23          essary to target funding support, from future  
24          programs of the Commission dedicated to the de-  
25          ployment of broadband Internet access service, to

1            *unserved agricultural land in need of broadband*  
2            *Internet access service; and*

3                    *(F) recommend specific steps that the Com-*  
4                    *mission should consider to ensure that the exper-*  
5                    *tise of the Secretary and available farm data are*  
6                    *reflected in future programs of the Commission*  
7                    *dedicated to the infrastructure deployment of*  
8                    *broadband Internet access service and to direct*  
9                    *available funding to unserved agricultural land*  
10                   *where needed.*

11                   *(2) NO DUPLICATE DATA REPORTING.—In per-*  
12                   *forming the duties of the Commission under para-*  
13                   *graph (1), the Commission shall ensure that no pro-*  
14                   *vider of broadband Internet access service is required*  
15                   *to report data to the Commission that is, on the day*  
16                   *before the date of enactment of this Act, required to*  
17                   *be reported by the provider of broadband Internet ac-*  
18                   *cess service.*

19                   *(3) HOLD HARMLESS.—The Task Force and the*  
20                   *Commission shall not interpret the phrase “future*  
21                   *programs of the Commission”, as used in subpara-*  
22                   *graphs (E) and (F) of paragraph (1), to include the*  
23                   *universal service programs of the Commission estab-*  
24                   *lished under section 254 of the Communications Act*  
25                   *of 1934 (47 U.S.C. 254).*

1           (4) *CONSULTATION.*—*The Secretary, or a des-*  
2           *ignee of the Secretary, shall explain and make avail-*  
3           *able to the Task Force the expertise, data mapping*  
4           *information, and resources of the Department that the*  
5           *Department uses to identify cropland, rangeland, and*  
6           *other areas with agricultural operations that may be*  
7           *helpful in developing the recommendations required*  
8           *under paragraph (1).*

9           (5) *LIST OF AVAILABLE FEDERAL PROGRAMS*  
10          *AND RESOURCES.*—*Not later than 180 days after the*  
11          *date of enactment of this Act, the Secretary and the*  
12          *Commission shall jointly submit to the Task Force a*  
13          *list of all Federal programs or resources available for*  
14          *the expansion of broadband Internet access service on*  
15          *unserved agricultural land to assist the Task Force in*  
16          *carrying out the duties of the Task Force.*

17          (d) *MEMBERSHIP.*—

18               (1) *IN GENERAL.*—*The Task Force shall be—*

19                       (A) *composed of not more than 15 voting*  
20                       *members who shall—*

21                               (i) *be selected by the Chairman of the*  
22                               *Commission; and*

23                               (ii) *include—*

24                                       (I) *agricultural producers rep-*  
25                                       *resenting diverse geographic regions*

1           *and farm sizes, including owners and*  
2           *operators of farms of less than 100*  
3           *acres;*

4                     *(II) an agricultural producer rep-*  
5                     *resenting tribal agriculture;*

6                     *(III) Internet service providers,*  
7                     *including regional or rural fixed and*  
8                     *mobile broadband Internet access serv-*  
9                     *ice providers and telecommunications*  
10                    *infrastructure providers;*

11                    *(IV) representatives from the elec-*  
12                    *tric cooperative industry;*

13                    *(V) representatives from the sat-*  
14                    *ellite industry;*

15                    *(VI) representatives from preci-*  
16                    *sion agriculture equipment manufac-*  
17                    *turers, including drone manufacturers,*  
18                    *manufacturers of autonomous agricul-*  
19                    *tural machinery, and manufacturers of*  
20                    *farming robotics technologies; and*

21                    *(VII) representatives from State*  
22                    *and local governments; and*

23                    *(B) fairly balanced in terms of technologies,*  
24                    *points of view, and fields represented on the Task*  
25                    *Force.*

1           (2) *PERIOD OF APPOINTMENT; VACANCIES.*—

2                   (A) *IN GENERAL.*—*A member of the Com-*  
3                   *mittee appointed under paragraph (1)(A) shall*  
4                   *serve for a single term of 2 years.*

5                   (B) *VACANCIES.*—*Any vacancy in the Task*  
6                   *Force—*

7                           (i) *shall not affect the powers of the*  
8                           *Task Force; and*

9                           (ii) *shall be filled in the same manner*  
10                           *as the original appointment.*

11           (3) *EX-OFFICIO MEMBER.*—*The Secretary, or a*  
12           *designee of the Secretary, shall serve as an ex-officio,*  
13           *nonvoting member of the Task Force.*

14           (e) *REPORTS.*—*Not later than 1 year after the date*  
15           *on which the Commission establishes the Task Force, and*  
16           *annually thereafter, the Task Force shall submit to the*  
17           *Chairman of the Commission a report, which shall be made*  
18           *public not later than 30 days after the date on which the*  
19           *Chairman receives the report, that details—*

20                           (1) *the status of fixed and mobile broadband*  
21                           *Internet access service coverage of agricultural land;*

22                           (2) *the projected future connectivity needs of ag-*  
23                           *ricultural operations, farmers, and ranchers; and*

24                           (3) *the steps being taken to accurately measure*  
25                           *the availability of broadband Internet access service*

1        *on agricultural land and the limitations of current,*  
2        *as of the date of the report, measurement processes.*

3        *(f) TERMINATION.—The Commission shall renew the*  
4        *Task Force every 2 years until the Task Force terminates*  
5        *on January 1, 2025.*



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## **A BILL**

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OCTOBER 2 (legislative day, SEPTEMBER 28), 2018

Reported with an amendment