

# Union Calendar No. 873

115TH CONGRESS  
2D SESSION

# H. R. 6226

[Report No. 115–1106, Part I]

To direct the Secretary of Commerce to provide for civil space situational awareness services and information, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JUNE 26, 2018

Mr. SMITH of Texas (for himself, Mr. BERA, Mr. BABIN, Mr. PERLMUTTER, Mr. LUCAS, Mr. ROHRABACHER, Mr. HULTGREN, Mr. POSEY, Mr. KNIGHT, Mr. ABRAHAM, Mr. WEBSTER of Florida, Mr. BIGGS, Mr. DUNN, Mr. HIGGINS of Louisiana, Mrs. LESKO, and Mr. WEBER of Texas) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committee on the Budget, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

DECEMBER 22, 2018

Reported from the Committee on Science, Space, and Technology with an amendment

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

DECEMBER 22, 2018

Referral to the Committee on the Budget extended for a period ending not later than December 28, 2018

DECEMBER 28, 2018

Committee on the Budget discharged; committed to the Committee of the Whole House on the State of the Union and ordered to be printed

[For text of introduced bill, see copy of bill as introduced on June 26, 2018]

# **A BILL**

To direct the Secretary of Commerce to provide for civil space situational awareness services and information, 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 “American Space Situa-*  
5 *tional Awareness and Framework for Entity Management*  
6 *Act” or the “American Space SAFE Management Act”.*

7 **SEC. 2. DEFINITIONS.**

8 *In this Act:*

9 (1) *APPROPRIATE COMMITTEES OF CONGRESS.—*

10 *The term “appropriate committees of Congress”*  
11 *means the Committee on Science, Space, and Tech-*  
12 *nology of the House of Representatives and the Com-*  
13 *mittee on Commerce, Science, and Transportation of*  
14 *the Senate.*

15 (2) *NASA.—The term “NASA” means the Na-*  
16 *tional Aeronautics and Space Administration.*

17 **SEC. 3. NATIONAL CIVIL SPACE SITUATIONAL AWARENESS**

18 **AND SPACE TRAFFIC MANAGEMENT SCIENCE**

19 **AND TECHNOLOGY PLAN.**

20 (a) *POLICY.—It is the policy of the United States to*  
21 *encourage the coordination of public and private sector*  
22 *science and technology activities to improve space situa-*  
23 *tional awareness and space traffic management.*

24 (b) *PLAN.—Not later than 180 days after the date of*  
25 *enactment of this Act, the Administrator of NASA, in con-*

1 *sultation with other Federal departments and agencies, as*  
2 *appropriate, shall develop and submit to the appropriate*  
3 *committees of Congress a national civil space situational*  
4 *awareness and space traffic management science and tech-*  
5 *nology plan.*

6       (c) *PURPOSE.*—*The Plan developed under subsection*  
7 *(b) shall carry out the policy set forth under subsection (a)*  
8 *by identifying and prioritizing civil space situational*  
9 *awareness and space traffic management research and de-*  
10 *velopment activities in support of the activities to be con-*  
11 *ducted pursuant to sections 4 and 5.*

12       (d) *CONTENTS.*—*The plan developed under subsection*  
13 *(b) shall include recommendations—*

14               (1) *to improve coordination among Federal de-*  
15 *partments and agencies on civil space situational*  
16 *awareness and space traffic management research and*  
17 *development;*

18               (2) *to promote and facilitate private investment*  
19 *in civil space situational awareness and space traffic*  
20 *management research and development;*

21               (3) *to identify current and project future private*  
22 *investment in civil space situational awareness and*  
23 *space traffic management research and development;*

24               (4) *to work proactively with the private sector to*  
25 *avoid competing with, disincentivizing, or otherwise*

1 *discouraging private sector research and development*  
2 *investment; and*

3 *(5) to prioritize Federal Government investments*  
4 *in civil space situational awareness and space traffic*  
5 *management research and development to occur over*  
6 *a 5-year funding period.*

7 *(e) AVAILABILITY.—The Administrator shall ensure*  
8 *that the plan developed under subsection (b), and any up-*  
9 *dates to such plan, are made available on a publicly acces-*  
10 *sible website and published in the Federal Register.*

11 *(f) UPDATED PLAN.—Every 5 years, the Adminis-*  
12 *trator shall update the plan and submit the updated plan*  
13 *to the appropriate committees of Congress.*

14 *(g) ANNUAL BUDGET.—In submitting each annual*  
15 *budget request to Congress, the President shall identify ac-*  
16 *tivities to implement the plan.*

17 *(h) CENTER FOR CIVIL SPACE SITUATIONAL AWARE-*  
18 *NESS AND SPACE TRAFFIC MANAGEMENT SCIENCE AND*  
19 *TECHNOLOGY EXCELLENCE.—*

20 *(1) ESTABLISHMENT.—The Administrator of*  
21 *NASA shall establish, through a competitive process,*  
22 *a Center for Civil Space Situational Awareness and*  
23 *Space Traffic Management Science and Technology*  
24 *Excellence at a United States academic institution or*  
25 *institutions.*

1           (2) *PURPOSE.*—*The purpose of the Center estab-*  
2 *lished under paragraph (1), taking into account the*  
3 *plan established in this section, shall be to develop,*  
4 *lead, and promote research that furthers civil space*  
5 *situational awareness, space traffic coordination, and*  
6 *space traffic management.*

7           (3) *FUNDING.*—*NASA shall devote not less than*  
8 *\$2,000,000 to carry out this subsection for each of fis-*  
9 *cal years 2019 through 2023, subject to the avail-*  
10 *ability of appropriations, to come from amounts*  
11 *made available for NASA. This subsection shall be*  
12 *carried out using funds otherwise appropriated by*  
13 *law after the date of enactment of this Act.*

14 **SEC. 4. CIVIL SPACE SITUATIONAL AWARENESS PROGRAM.**

15 (a) *FINDINGS.*—*Congress finds that—*

16           (1) *commercial activity in space is accelerating*  
17 *and the United States has a growing commercial*  
18 *space market;*

19           (2) *the number of launches and satellites in orbit*  
20 *will grow significantly in the near future, increasing*  
21 *the number of objects, satellites, and debris, and the*  
22 *risk of collisions; and*

23           (3) *responsible space operations has large impli-*  
24 *cations for the sustainability of space activities, and*

1        *in turn the prosperity and national security of the*  
2        *United States.*

3        (b) *POLICY.—It is the policy of the United States to*  
4        *establish and maintain a civil space situational awareness*  
5        *program that provides the public space situational aware-*  
6        *ness information and services in order to facilitate a safe*  
7        *operational environment. The Program established under*  
8        *subsection (c) shall facilitate and promote opportunities for*  
9        *United States private sector providers of space situational*  
10       *awareness data, information, and services to participate in*  
11       *and contribute to the Program. The Program shall promote*  
12       *broad participation from both domestic and international*  
13       *spacecraft operators.*

14       (c) *ESTABLISHMENT.—No later than 1 year after the*  
15       *date of enactment of this Act, the Secretary of Commerce*  
16       *shall establish a civil space situational awareness program*  
17       *(in this section, referred to as the “Program”) to provide*  
18       *space situational awareness services and information to,*  
19       *and obtain space situational awareness data and informa-*  
20       *tion from, eligible entities described under subsection (f),*  
21       *in accordance with this section.*

22       (d) *CONSULTATION.—In developing the Program, the*  
23       *Secretary of Commerce shall consult with—*

24                (1) *other Federal departments and agencies, as*  
25        *the Secretary considers appropriate; and*

1           (2) *the United States private sector and aca-*  
2 *demia.*

3           (e) *TRANSITION PLAN.*—

4           (1) *IN GENERAL.*—*Not later than 6 months after*  
5 *the date of the enactment of this Act, the Secretary of*  
6 *Commerce and the Secretary of Defense, in coordina-*  
7 *tion with relevant Federal agencies, shall jointly sub-*  
8 *mit a transition plan to the appropriate committees*  
9 *of Congress for the transfer to the Department of*  
10 *Commerce of the provision of space situational aware-*  
11 *ness services and information performed under section*  
12 *2274 of title 10, United States Code, as of the day be-*  
13 *fore the date of the enactment of this Act.*

14           (2) *CONTENTS.*—*The transition plan referred to*  
15 *in paragraph (1) shall—*

16           (A) *contain an analysis of how to prevent*  
17 *a gap in the provision of the space situational*  
18 *awareness services and information referred to*  
19 *in such paragraph;*

20           (B) *identify the capabilities the Department*  
21 *of Commerce requires to provide such services*  
22 *and information, including—*

23                   (i) *workforce, facilities, and training;*

24                   (ii) *the cost of such capabilities; and*



1                   (iii) the estimated effective date for  
2                   such capabilities; and

3                   (C) describe the structure of any partner-  
4                   ship with a commercial or international entity  
5                   or entities in which the Department of Commerce  
6                   may enter for purposes of providing such services  
7                   and information.

8           (f) *ELIGIBLE ENTITIES.*—The Secretary may provide  
9 services and information under the Program to, and may  
10 obtain data and information from, an entity, including any  
11 of the following:

12                   (1) A State.

13                   (2) A political subdivision of a State.

14                   (3) A United States commercial entity.

15                   (4) The government of a foreign country.

16                   (5) A foreign commercial entity.

17           (g) *USER FEES.*—

18                   (1) *NO FEE FOR BASIC SET.*—In providing space  
19 situational awareness services and information under  
20 the Program, the Secretary shall provide a basic set  
21 of such services and information, as determined by  
22 the Secretary, without charging a user fee.

23                   (2) *ADDITIONAL SERVICES AND INFORMATION.*—

24                   The Secretary is authorized to charge a reasonable  
25 user fee for any additional space situational aware-

1        *ness services and information not provided under*  
2        *paragraph (1).*

3                (3) *STATUTORY CONSTRUCTION.—Nothing in this*  
4        *subsection shall be construed to preclude private sector*  
5        *entities from charging a user fee for providing space*  
6        *situational awareness services and information.*

7        (h) *QUALITY OF SERVICES AND INFORMATION.—The*  
8        *Program shall provide space situational awareness services*  
9        *and information that are as good as or better than the serv-*  
10       *ices and information provided pursuant to section 2274 of*  
11       *title 10, United States Code, as determined by the Sec-*  
12       *retary.*

13        (i)    *SPACE    SITUATIONAL    AWARENESS    DATA*  
14        *TESTBED.—In carrying out the Program, the Secretary*  
15        *shall provide for a space situational awareness data testbed*  
16        *to facilitate innovation in the use of space situational*  
17        *awareness data to support space situational awareness serv-*  
18        *ices that may be provided by the Federal Government or*  
19        *the private sector. The testbed shall allow the public to ac-*  
20        *cess such space situational awareness data, including*  
21        *United States Government data, as the Secretary considers*  
22        *appropriate. The Secretary shall place conditions on such*  
23        *data in consultation with appropriate Federal departments*  
24        *and agencies to protect United States national security and*  
25        *foreign policy interests.*

1           (j) *PROMOTING PRIVATE SECTOR SOLUTIONS.*—The  
2 Secretary shall facilitate and promote opportunities for  
3 United States private sector providers of space situational  
4 awareness data, information, and services to participate in  
5 and contribute to the Program.

6           (k) *ROLE OF NASA.*—In implementing and carrying  
7 out the Program, the Secretary of Commerce may use, on  
8 a reimbursable basis and to the greatest extent practicable,  
9 NASA’s existing infrastructure, workforce, and experience  
10 relating to space situational awareness, including conjunc-  
11 tion assessments that NASA provides for NASA robotic and  
12 crewed operations.

13           (l) *OTHER FEDERAL AGENCIES.*—In implementing  
14 and carrying out the Program, the Secretary of Commerce  
15 may leverage existing workforce and experience of other  
16 Federal agencies relating to space situational awareness for  
17 the training of staff and other needs, as determined by the  
18 Secretary.

19           (m) *IMMUNITY.*—The United States, any agencies and  
20 instrumentalities thereof, including the Department of  
21 Commerce and NASA, and any individuals, firms, corpora-  
22 tions, and other persons acting for the United States, shall  
23 be immune from any suit in any court for any cause of  
24 action arising from the provision or receipt of space situa-  
25 tional awareness services or information, whether or not

1 *provided in accordance with this section, or any related ac-*  
2 *tion or omission.*

3       (n) *QUARTERLY BRIEFING.*—*The Department of Com-*  
4 *merce and NASA shall brief the appropriate committees of*  
5 *Congress quarterly, beginning on the date that is 3 months*  
6 *after the date of enactment of this Act, on the status of,*  
7 *and all progress, changes, and other developments related*  
8 *to, carrying out the Program.*

9       (o) *PROGRAM USERS.*—*The Secretary shall, to the*  
10 *maximum extent feasible and as soon as is practicable after*  
11 *the establishment of the Program, engage with and solicit*  
12 *feedback from stakeholders that are contributors to or recipi-*  
13 *ents of space situational awareness services and informa-*  
14 *tion under the Program in order to, at a minimum, receive*  
15 *practical information on the effectiveness of the Program*  
16 *and receive recommendations on how to improve the Pro-*  
17 *gram.*

18       (p) *STATUTORY CONSTRUCTION.*—*Nothing in this sec-*  
19 *tion may be construed to modify any other authorities for*  
20 *the Federal Government to provide space situational aware-*  
21 *ness services and information to the public.*

22       (q) *FUNDING.*—*The Secretary shall devote no less than*  
23 *\$20,000,000 to carry out this section for each of fiscal years*  
24 *2019 through 2023, subject to the availability of appropria-*  
25 *tions, to come from amounts made available for the Office*

1 *of the Secretary. This section shall be carried out using*  
2 *funds otherwise appropriated by law after the date of enact-*  
3 *ment of this Act.*

4 **SEC. 5. SPACE TRAFFIC MANAGEMENT FRAMEWORK.**

5 (a) *FINDINGS.—Congress finds the following:*

6 (1) *The United States has the capability to rap-*  
7 *idly develop voluntary civil space traffic coordination*  
8 *guidelines, practices, and standards.*

9 (2) *It is in the national interest that the United*  
10 *States leads the world in the development of vol-*  
11 *untary civil space traffic coordination guidelines,*  
12 *practices, and standards in cooperation with the pri-*  
13 *vate sector in the United States.*

14 (3) *The United States should promote the inter-*  
15 *national adoption of such civil space traffic coordina-*  
16 *tion guidelines, practices, and standards developed in*  
17 *the United States.*

18 (4) *Establishing voluntary civil space traffic co-*  
19 *ordination guidelines, practices, and standards is an*  
20 *important first step in developing a comprehensive*  
21 *space traffic management framework.*

22 (b) *POLICY.—It is the policy of the United States to*  
23 *timely develop voluntary civil space traffic coordination*  
24 *guidelines, practices, and standards to ensure a safe oper-*  
25 *ational environment.*

1           (c) *VOLUNTARY CIVIL SPACE TRAFFIC COORDINATION*  
2 *GUIDELINES, PRACTICES, AND STANDARDS.*—

3           (1) *IN GENERAL.*—*The Secretary of Commerce*  
4 *shall, in consultation with appropriate governmental*  
5 *and nongovernmental entities, promote the develop-*  
6 *ment of voluntary civil space traffic coordination*  
7 *guidelines, practices, and standards to ensure a safe*  
8 *operational environment and inform development of a*  
9 *comprehensive space traffic management framework.*

10           (2) *GUIDELINES.*—

11           (A) *IN GENERAL.*—*Not later than 1 year*  
12 *after the date of the enactment of this Act, the*  
13 *Secretary of Commerce shall publish voluntary*  
14 *civil space traffic coordination guidelines. Such*  
15 *guidelines shall be developed in consultation with*  
16 *other relevant Federal agencies, domestic private*  
17 *entities (including entities in the commercial sec-*  
18 *tor and institutions of higher education (as such*  
19 *term is defined in section 101 of the Higher*  
20 *Education Act of 1965 (20 U.S.C. 1001))).*

21           (B) *PUBLIC COMMENT.*—*To facilitate and*  
22 *assure ample opportunity for input from domes-*  
23 *tic private entities specified in subparagraph*  
24 *(A), during the period in which the development*  
25 *of the guidelines under such subparagraph oc-*

1           *curs, the Secretary of Commerce shall allow for*  
2           *a public comment period to identify key issues,*  
3           *trends, and needs that should be addressed dur-*  
4           *ing the period of that development.*

5           (C) *USE OF GUIDELINES.*—*Federal agencies*  
6           *operating spacecraft shall, to the extent prac-*  
7           *ticable and taking into account the national se-*  
8           *curity interests of the United States in operating*  
9           *such spacecraft, follow the guidelines issued*  
10          *under subparagraph (A).*

11          (d) *PILOT PROGRAM.*—

12           (1) *IN GENERAL.*—*Not later than 18 months*  
13          *after the date of enactment of this Act, the Secretary*  
14          *of Commerce shall establish a civil space traffic co-*  
15          *ordination pilot program under which the Secretary*  
16          *will, using the guidelines, practices, and standards*  
17          *developed under subsection (c) to the greatest extent*  
18          *practicable, facilitate communication, coordination,*  
19          *negotiation, and resolution among domestic and*  
20          *international civil spacecraft operators (including*  
21          *governmental and private entities operating such*  
22          *spacecraft) for the purposes of improving the safety of*  
23          *spaceflight. The Secretary shall, to the greatest extent*  
24          *practicable, incentivize participation in the pilot pro-*  
25          *gram. Nothing in the preceding sentence shall be con-*

1 *strued as requiring a private entity to participate in*  
2 *such pilot program.*

3 (2) *PUBLIC COMMENT.*—*Before establishing the*  
4 *pilot program under this subsection, the Secretary of*  
5 *Commerce shall publish information about the pro-*  
6 *gram’s details in the Federal Register and allow for*  
7 *public comment for a reasonable period that ends be-*  
8 *fore the date of such establishment.*

9 (3) *DURATION.*—*The authority to carry out the*  
10 *pilot program under this subsection shall terminate*  
11 *on the date that is 5 years after the pilot program*  
12 *under paragraph (1) is established.*

13 (4) *PILOT PROGRAM PARTICIPANTS.*—*The Sec-*  
14 *retary shall, to the maximum extent feasible and as*  
15 *soon as is practicable after the date on which the pilot*  
16 *program is established under paragraph (1), engage*  
17 *with and solicit feedback from pilot program partici-*  
18 *pants, in order to, at minimum, receive practical in-*  
19 *formation on the effectiveness of the pilot program*  
20 *and receive recommendations on how to improve the*  
21 *pilot program.*

22 (5) *FUNDING.*—*The Secretary of Commerce shall*  
23 *devote no less than \$5,000,000 for each of fiscal years*  
24 *2019 through 2023 to carry out this subsection, sub-*  
25 *ject to the availability of appropriations, to come*



1 *from amounts made available for the Office of the*  
2 *Secretary. This subsection shall be carried out using*  
3 *funds otherwise appropriated by law after the date of*  
4 *enactment of this Act.*

5 *(e) REPORTS.—*

6 *(1) SPACE TRAFFIC COORDINATION STAND-*  
7 *ARDS.—Not later than 180 days after the date of the*  
8 *enactment of this Act, the Secretary of Commerce*  
9 *shall submit to the appropriate committees of Con-*  
10 *gress a report on the role the Department of Com-*  
11 *merce, including the National Institute of Standards*  
12 *and Technology, will have in the development of civil*  
13 *space traffic coordination standards for purposes of*  
14 *promoting innovation and the competitiveness of the*  
15 *United States.*

16 *(2) REPORT ON NEXT STEPS FOR SPACE TRAFFIC*  
17 *MANAGEMENT FRAMEWORK.—Beginning not later*  
18 *than 1 year after the date of the enactment of this Act*  
19 *and every 2 years thereafter, the Secretary of Com-*  
20 *merce shall submit to the appropriate committees of*  
21 *Congress a report on, for the period covered by the re-*  
22 *port—*

23 *(A) the state of domestic and international*  
24 *civil space traffic management, including vol-*

1            *untary or legally binding guidelines, practices,*  
2            *and standards; and*

3            *(B) the Secretary’s recommendations on*  
4            *what steps should be taken by the United States*  
5            *to facilitate—*

6                    *(i) further development and adoption*  
7                    *of the guidelines, practices, and standards*  
8                    *developed under subsection (c);*

9                    *(ii) coordination carried out pursuant*  
10                   *to subsection (d); and*

11                   *(iii) development of a comprehensive*  
12                   *space traffic management framework.*



Union Calendar No. 873

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

**H. R. 6226**

[Report No. 115-1106, Part I]

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## **A BILL**

To direct the Secretary of Commerce to provide for civil space situational awareness services and information, and for other purposes.

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DECEMBER 28, 2018

Committee on the Budget discharged; committed to the Committee of the Whole House on the State of the Union and ordered to be printed