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116TH CONGRESS
1ST SESSION

H. R. 4462

To amend the National Telecommunications and Information Administration Organization Act to provide for the establishment of an electromagnetic spectrum sharing research and development program and an integrated spectrum automation enterprise strategy, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 24, 2019

Mr. MICHAEL F. DOYLE of Pennsylvania (for himself and Mr. LATTA) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committee on Science, Space, and Technology, 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

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A BILL

To amend the National Telecommunications and Information Administration Organization Act to provide for the establishment of an electromagnetic spectrum sharing research and development program and an integrated spectrum automation enterprise strategy, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Studying How to Harness Airwave Resources Efficiently Act of 2019'' or the ''SHARE Act''.

SEC. 2. NTIA ELECTROMAGNETIC SPECTRUM SHARING RESEARCH AND DEVELOPMENT PROGRAM AND STRATEGY.

Part A of the National Telecommunications and Information Administration Organization Act (47 U.S.C. 901 et seq.) is amended by adding at the end the following:

''SEC. 106. ELECTROMAGNETIC SPECTRUM SHARING RESEARCH AND DEVELOPMENT PROGRAM AND STRATEGY.

''(a) RESEARCH AND DEVELOPMENT PROGRAM.—Not later than 1 year after the date of the enactment of the Studying How to Harness Airwave Resources Efficiently Act of 2019, the Assistant Secretary, in consultation with the Commission, shall establish a program to research and develop innovative technologies and techniques that facilitate the sharing of the same covered electromagnetic spectrum by more than one Federal entity.

''(b) DEVELOPMENT OF INTEGRATED SPECTRUM AUTOMATION ENTERPRISE STRATEGY.—

''(1) IN GENERAL.—Not later than 1 year after the date of the enactment of the Studying How to

Harness Airwave Resources Efficiently Act of 2019, the Assistant Secretary, in consultation with the Commission, shall propose, after notice and opportunity for comment, an integrated spectrum automation enterprise strategy to address the management of covered electromagnetic spectrum in order to facilitate the sharing of such spectrum by more than one Federal entity.

''(2) MATTERS ENCOMPASSED.—In developing the strategy under paragraph (1), the Assistant Secretary shall consider, at a minimum, whether to propose—

''(A) changes in policy or to the law, including legislative and regulatory changes; and

''(B) using—

''(i) databases;

''(ii) artificial intelligence;

''(iii) spectrum management processes;

''(iv) public-facing application programming interfaces and online tools;

''(v) automatic frequency coordination systems;

''(vi) spectrum enforcement requirements;

"(vii) listen-before-talk;

"(viii) environmental sensing capabilities; and

"(ix) electromagnetic spectrum compatibility analyses.

"(3) ESTABLISHMENT OF SHARING TEST BED.—Not later than 15 months after the date of the enactment of the Studying How to Harness Airwave Resources Efficiently Act of 2019, the Assistant Secretary, in consultation with the Commission, shall, as part of the strategy proposed under paragraph (1), establish at least one test bed to demonstrate the potential for automated technologies to facilitate the sharing of the same covered electromagnetic spectrum by more than one Federal entity.

"(4) UPDATES TO STRATEGY.—Not later than 1 year after the strategy under paragraph (1) is proposed, and annually thereafter, the Assistant Secretary shall update such strategy.

"(c) REPORT.—Not later than 18 months after the date of the enactment of the Studying How to Harness Airwave Resources Efficiently Act of 2019, and annually thereafter, the Assistant Secretary, in consultation with the Commission, shall submit to the Committee on Energy and Commerce of the House of Representatives and the

Committee on Commerce, Science, and Transportation of the Senate a report containing—

''(1) the results of the program established under subsection (a); and

''(2) the strategy proposed under subsection (b)(1) with respect to the first report submitted under this subsection and updates to the strategy proposed under such subsection with respect to reports submitted thereafter.

''(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Assistant Secretary to carry out this section $50,000,000 for fiscal year 2020. Such amounts are authorized to remain available until expended.

''(e) DEFINITIONS.—In this section:

''(1) COVERED ELECTROMAGNETIC SPECTRUM.—The term 'covered electromagnetic spectrum' means electromagnetic spectrum allocated for exclusive or primary use by Federal entities.

''(2) FEDERAL ENTITY.—The term 'Federal entity' has the meaning given such term in section 113(l).''.

SEC. 3. FEDERAL COMMUNICATIONS COMMISSION REPORT ON EXPANDING SPECTRUM SHARING TECHNIQUES.

(a) REPORT.—Not later than 12 months after the first assignment of Priority Access Licenses through the system of competitive bidding, after an opportunity for notice and comment, the Federal Communications Commission shall submit to the Committee on Energy and Commerce of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report that assesses and provides recommendations for expanding upon and improving spectrum sharing techniques developed for use in the 3.5 gigahertz band and that includes the following considerations:

(1) How to promote an ecosystem of devices employing such sharing techniques.

(2) How to ensure that any Federal protection zones and corresponding technical rules and power levels are no more protective than necessary.

(3) The applicability of such sharing techniques to frequencies between 3100 megahertz and 3550 megahertz, inclusive, and frequencies between 7125 megahertz and 8400 megahertz, inclusive, to the extent any portion of such frequencies cannot be cleared in a reasonable amount of time.

(b) RULE OF CONSTRUCTION.—Nothing in subsection (a)(3) may be construed to require that every spectrum sharing technique developed for use in the 3.5 gigahertz band be recommended for use in other bands.

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