

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

# H. R. 4990

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IN THE SENATE OF THE UNITED STATES

JULY 28, 2022

Received; read twice and referred to the Committee on Commerce, Science,  
and Transportation

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## AN ACT

To codify the Institute for Telecommunication Sciences and to direct the Assistant Secretary of Commerce for Communications and Information to establish an initiative to support the development of emergency communication and tracking technologies, 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 “Institute for Tele-

5 communication Sciences Codification Act” or the “ITS

6 Codification Act”.

7 **SEC. 2. INSTITUTE FOR TELECOMMUNICATION SCIENCES.**

8        (a) FINDINGS.—Congress finds the following:

9            (1) The test center within National Tele-

10        communications and Information Administration (in

11        this subsection referred to as the “NTIA”) rep-

12        resents executive branch agencies on spectrum issues

13        before the Federal Communications Commission.

14            (2) Understanding radio frequency propagation

15        characteristics and modeling is a critical component

16        of making spectrum decisions.

17            (3) Federal agencies rely on expert engineering

18        studies, simulations, and analyses to make deter-

19        minations about how to make spectrum available for

20        commercial use, including through system reloca-

21        tions and identifying spectrum sharing opportunities

22        through the NTIA.

23            (4) Clearing of Federal spectrum, when fea-

24        sible, is the priority action to take to make Federal

25        spectrum available for commercial uses as required

1 by section 113(j)(1) of the National Telecommuni-  
2 cations and Information Administration Organiza-  
3 tion Act (47 U.S.C. 923(j)(1)).

4 (5) Sharing of Federal spectrum between Fed-  
5 eral entities and commercial entities provides access  
6 to Federal spectrum for commercial uses in cir-  
7 cumstances where clearing is not feasible.

8 (6) The test center within NTLA, is the Govern-  
9 ment’s premier expert laboratory for spectrum re-  
10 search activities, spectrum sharing innovation and  
11 testing, spectrum interference studies, and all activi-  
12 ties related to advancing next generation wireless  
13 technologies.

14 (7) The test center within NTLA is critical for  
15 undertaking engineering studies and analyses that  
16 inform clearing or sharing opportunities and facili-  
17 tate policy decisions to maximize the efficient use of  
18 spectrum resources.

19 (b) OPERATION OF TEST CENTER.—Part A of the  
20 National Telecommunications and Information Adminis-  
21 tration Organization Act (47 U.S.C. 901 et seq.) is  
22 amended by adding at the end the following:

23 **“SEC. 106. INSTITUTE FOR TELECOMMUNICATION**  
24 **SCIENCES.**

25 **“(a) ESTABLISHMENT.—**

1           “(1) IN GENERAL.—Under the authority pro-  
2           vided to the Assistant Secretary under section 103,  
3           the Assistant Secretary shall operate a test center to  
4           be known as the Institute for Telecommunication  
5           Sciences (in this section referred to as ‘ITS’).

6           “(2) FUNCTIONS.—

7           “(A) IN GENERAL.—In addition to any  
8           functions delegated by the Assistant Secretary  
9           under subparagraph (B), ITS shall serve as the  
10          primary laboratory for the executive branch of  
11          the Federal Government to—

12                   “(i) study radio frequency emissions,  
13                   including technologies and techniques to  
14                   control such emissions and interference  
15                   caused by such emissions;

16                   “(ii) determine spectrum propagation  
17                   characteristics;

18                   “(iii) conduct tests on technology that  
19                   enhances the sharing of electromagnetic  
20                   spectrum between Federal and non-Federal  
21                   users;

22                   “(iv) improve the interference toler-  
23                   ance of Federal systems operating with, or  
24                   using, Federal spectrum;

1           “(v) promote activities relating to ac-  
2           cess to Federal spectrum by non-Federal  
3           users and the sharing of Federal spectrum  
4           between Federal and non-Federal users;  
5           and

6           “(vi) conduct such other activities as  
7           determined necessary by the Assistant Sec-  
8           retary.

9           “(B) ADDITIONAL FUNCTIONS.—The As-  
10          sistant Secretary may delegate to ITS any of  
11          the functions assigned to the Assistant Sec-  
12          retary under section 103(b)(1).

13          “(3) AGREEMENTS AND TRANSACTIONS.—In  
14          carrying out the functions described in paragraph  
15          (2), the Assistant Secretary, acting through the head  
16          of ITS, may enter into agreements as provided  
17          under the following authorities:

18                 “(A) Sections 11 and 12 of the Stevenson–  
19          Wydler Technology Innovation Act of 1980.

20                 “(B) Section 1535 of title 31, United  
21          States Code.

22                 “(C) Sections 207 and 209 of title 35,  
23          United States Code.

24                 “(D) Section 103(b)(2) of this Act.

25                 “(E) Section 113(g) of this Act.

1           “(F) The first undesignated section of  
2           Public Law 91–412.

3           “(G) As authorized in any other Federal  
4           statute.

5           “(4) FEDERAL SPECTRUM DEFINED.—In this  
6           subsection, the term ‘Federal spectrum’ means fre-  
7           quencies assigned on a primary basis to a Federal  
8           entity (as defined in section 113(l)).

9           “(b) EMERGENCY COMMUNICATION AND TRACKING  
10          TECHNOLOGIES INITIATIVE.—

11           “(1) ESTABLISHMENT.—The Assistant Sec-  
12          retary, acting through the head of ITS, shall estab-  
13          lish an initiative to support the development of  
14          emergency communication and tracking technologies  
15          for use in locating trapped individuals in confined  
16          spaces, such as underground mines, and other  
17          shielded environments, such as high-rise buildings or  
18          collapsed structures, where conventional radio com-  
19          munication is limited.

20           “(2) ACTIVITIES.—In order to carry out this  
21          subsection, the Assistant Secretary, acting through  
22          the head of ITS, shall work with private sector enti-  
23          ties and the heads of appropriate Federal agencies,  
24          to—

1               “(A) perform a needs assessment to iden-  
2               tify and evaluate the measurement, technical  
3               specifications, and conformity assessment needs  
4               required to improve the operation and reliability  
5               of such emergency communication and tracking  
6               technologies; and

7               “(B) support the development of technical  
8               specifications and conformance architecture to  
9               improve the operation and reliability of such  
10              emergency communication and tracking tech-  
11              nologies.

12              “(3) REPORT.—Not later than 18 months after  
13              the date of the enactment of this section, the Assist-  
14              ant Secretary shall submit to Congress, and make  
15              publicly available, a report on the assessment per-  
16              formed under paragraph (2)(A).”.

Passed the House of Representatives July 27, 2022.

Attest:                      CHERYL L. JOHNSON,  
  *Clerk.*