

## [Committee Print]

[SHOWING THE TEXT OF H.R. 4990 AS FORWARDED BY THE SUBCOMMITTEE  
ON COMMUNICATIONS AND TECHNOLOGY ON JUNE 15, 2022]

117TH CONGRESS  
1ST SESSION

# H. R. 4990

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.

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### IN THE HOUSE OF REPRESENTATIVES

AUGUST 10, 2021

Mr. CARTER of Georgia introduced the following bill; which was referred to the Committee on Energy and Commerce

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## A BILL

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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Institute for Tele-  
3 communication Sciences Codification Act” or the “ITS  
4 Codification Act”.

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

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

7 (1) The test center within National Tele-  
8 communications and Information Administration (in  
9 this subsection referred to as the “NTIA”) rep-  
10 resents executive branch agencies on spectrum issues  
11 before the Federal Communications Commission.

12 (2) Understanding radio frequency propagation  
13 characteristics and modeling is a critical component  
14 of making spectrum decisions.

15 (3) Federal agencies rely on expert engineering  
16 studies, simulations, and analyses to make deter-  
17 minations about how to make spectrum available for  
18 commercial use, including through system reloca-  
19 tions and identifying spectrum sharing opportunities  
20 through the NTIA.

21 (4) Clearing of Federal spectrum, when fea-  
22 sible, is the priority action to take to make Federal  
23 spectrum available for commercial uses as required  
24 by section 113(j)(1) of the National Telecommuni-  
25 cations and Information Administration Organiza-  
26 tion Act (47 U.S.C. 923(j)(1)).

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

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

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

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

20        **“SEC. 106. INSTITUTE FOR TELECOMMUNICATION**  
 21   **SCIENCES.**

22        “(a) ESTABLISHMENT.—

23                “(1) IN GENERAL.—Under the authority pro-  
 24                vided to the Assistant Secretary under section 103,  
 25                the Assistant Secretary shall operate a test center to

1 be known as the Institute for Telecommunication  
2 Sciences (in this section referred to as ‘ITS’).

3 “(2) FUNCTIONS.—

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

9 “(i) study radio frequency emissions,  
10 including technologies and techniques to  
11 control such emissions and interference  
12 caused by such emissions;

13 “(ii) determine spectrum propagation  
14 characteristics;

15 “(iii) conduct tests on technology that  
16 enhances the sharing of electromagnetic  
17 spectrum between Federal and non-Federal  
18 users;

19 “(iv) improve the interference toler-  
20 ance of Federal systems operating with, or  
21 using, Federal spectrum;

22 “(v) promote activities relating to ac-  
23 cess to Federal spectrum by non-Federal  
24 users and the sharing of Federal spectrum

1           between Federal and non-Federal users;  
2           and

3           “(vi) conduct such other activities as  
4           determined necessary by the Assistant Sec-  
5           retary.

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

10          “(3) AGREEMENTS AND TRANSACTIONS.—The  
11          Assistant Secretary, acting through the head of ITS,  
12          may enter into such agreements, including contracts,  
13          cooperative agreements, and interagency agreements,  
14          as may be necessary to carry out the functions de-  
15          scribed in paragraph (2).

16          “(4) FUNDS FROM FEDERAL AND NON-FED-  
17          ERAL ENTITIES.—In addition to such other sums as  
18          may be made available to carry out this section, the  
19          Assistant Secretary, acting through the head of ITS  
20          may accept, hold, administer, and use funds from  
21          any Federal entity or non-Federal entity, including  
22          a State government, local government, or private  
23          sector entity, for ITS to perform analysis or conduct  
24          a technical study on behalf of such entity.

1           “(5) FEDERAL SPECTRUM DEFINED.—In this  
2 subsection, the term ‘Federal spectrum’ means fre-  
3 quencies assigned on a primary basis to a Federal  
4 entity (as defined in section 113(l) of the National  
5 Telecommunications and Information Administration  
6 Organization Act (47 U.S.C. 923(l))).

7           “(b) EMERGENCY COMMUNICATION AND TRACKING  
8 TECHNOLOGIES INITIATIVE.—

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

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

23           “(A) perform a needs assessment to iden-  
24 tify and evaluate the measurement, technical  
25 specifications, and conformity assessment needs

1 required to improve the operation and reliability  
2 of such emergency communication and tracking  
3 technologies; and

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

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