

**Calendar No. 577**

116TH CONGRESS }  
2d Session }

SENATE

{ REPORT  
116-285 }

SUPPORTING RESEARCH AND  
DEVELOPMENT FOR FIRST  
RESPONDERS ACT

—  
R E P O R T

OF THE

COMMITTEE ON HOMELAND SECURITY AND  
GOVERNMENTAL AFFAIRS  
UNITED STATES SENATE

TO ACCOMPANY

H.R. 542

TO AMEND THE HOMELAND SECURITY ACT OF 2002 TO  
ESTABLISH NATIONAL URBAN SECURITY TECHNOLOGY, AND FOR  
OTHER PURPOSES



NOVEMBER 9, 2020.—Ordered to be printed

—  
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SUPPORTING RESEARCH AND DEVELOPMENT FOR FIRST  
RESPONDERS ACT

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Mr. JOHNSON, from the Committee on Homeland Security and  
Governmental Affairs, submitted the following

**R E P O R T**

[To accompany H.R. 542]

[Including cost estimate of the Congressional Budget Office]

The Committee on Homeland Security and Governmental Affairs, to which was referred the bill (H.R. 542) to amend the Homeland Security Act of 2002 to establish the National Urban Security Technology Laboratory, and for other purposes, reports favorably thereon with an amendment in the nature of a substitute and recommends that the bill, as amended, do pass.

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I. PURPOSE AND SUMMARY

H.R. 542, the Supporting Research and Development for First Responders Act, amends the Homeland Security Act of 2002 to codify the existing National Urban Security Technology Laboratory (NUSTL) within the Department of Homeland Security's (DHS) Science and Technology Directorate (S&T). NUSTL is required to provide technical advisory services to emergency response providers and carry out other activities determined by the Secretary to assist emergency response providers in preparing for and protecting against terrorism threats. The laboratory is also responsible for

testing emerging technologies including cybersecurity technologies for emergency response providers and conducting research and development on radiological and nuclear response and recovery.

## II. BACKGROUND AND THE NEED FOR LEGISLATION

The NUSTL, founded in 1947, provides the nation's first responder community the necessary services to prevent and respond to homeland security threats and support national security efforts.<sup>1</sup> The laboratory was initially established as part of the Medical Division of the Atomic Energy Commission for the purpose of serving research efforts leading to the development of the atomic bomb.<sup>2</sup> In 1977, the laboratory changed its name from the Energy Research and Development Administration's Health & Safety Laboratory to the Environmental Measurements Laboratory (EML).<sup>3</sup> Also in 1977, EML was transferred to the newly-created U.S. Department of Energy (DOE). While under DOE, the laboratory performed extensive environmental radiation and nuclear tests.<sup>4</sup>

After the September 11, 2001 terrorist attacks, the Department of Homeland Security (DHS) was created. In 2003, EML was transferred from DOE to the newly created DHS Science and Technology (S&T) Directorate.<sup>5</sup> The name of the laboratory was changed to the NUSTL in 2009.<sup>6</sup>

The mission of NUSTL is to provide research, testing, and evaluation capabilities that prevent terrorist attacks and respond to threats to the nation.<sup>7</sup> The laboratory partners with technology end-users to effectively plan and execute tests, evaluations and assessments of existing and emerging technologies and develop viable solutions to radiological and nuclear threats.<sup>8</sup> It also supports the transition of homeland security technologies into field use for first responders, and works side-by-side with them as a technical advisor.<sup>9</sup> Additionally, NUSTL serves as a spot for the first responder community to collaborate and work together on relevant technology and equipment.<sup>10</sup>

The laboratory also manages the System Assessment and Validation for Emergency Responders (SAVER) Program that assesses available technology and equipment and assists emergency responders in making procurement decisions.<sup>11</sup> The SAVER Program provides emergency responders with necessary information to make

<sup>1</sup>*National Urban Security Technology Laboratory*, DHS Sci. & Tech. Directorate (Mar. 28, 2018), [https://www.dhs.gov/sites/default/files/publications/849\\_NUSTL\\_NUSTL-FactSheet\\_180328-508.pdf](https://www.dhs.gov/sites/default/files/publications/849_NUSTL_NUSTL-FactSheet_180328-508.pdf).

<sup>2</sup>News Release, U.S. Dep't of Homeland Security, DHS S&T Laboratory Celebrates 70+ Years of Service (Nov. 20, 2017), <https://www.dhs.gov/science-and-technology/news/2017/11/20/responder-news-dhs-st-laboratory-celebrates-70-years-service>.

<sup>3</sup>*Id.*

<sup>4</sup>*The Environmental Measurements Laboratory*, U.S. Dep't of Energy, <https://www.wipp.energy.gov/NAMP/EMLLegacy/> (last visited July 22, 2020).

<sup>5</sup>*Id.*

<sup>6</sup>*Id.*

<sup>7</sup>*Id.*

<sup>8</sup>*National Urban Security Technology Laboratory*, DHS Sci. & Tech. Directorate (Mar. 28, 2018), [https://www.dhs.gov/sites/default/files/publications/849\\_NUSTL\\_NUSTL-FactSheet\\_180328-508.pdf](https://www.dhs.gov/sites/default/files/publications/849_NUSTL_NUSTL-FactSheet_180328-508.pdf).

<sup>9</sup>*Id.*

<sup>10</sup>*History of the Environmental Measurements Laboratory*, U.S. Dep't of Energy, <https://www.wipp.energy.gov/NAMP/EMLLegacy/history.htm> (last visited Aug. 3, 2020).

<sup>11</sup>*System Assessment and Validation for Emergency Responders (SAVER) Program*, U.S. Dep't of Homeland Sec. Sci. & Tech. Directorate, <https://www.dhs.gov/science-and-technology/saver> (July 22, 2020).

effective decisions on equipment and technology use, maintenance, and acquisitions.<sup>12</sup>

This Act codifies the existing NUSTL laboratory within DHS. In 2006, Congress established the Domestic Nuclear Detection Office (DNDO) and transferred authorities related to the prevention of “radiological, nuclear” threats from S&T to DNDO.<sup>13</sup> Then in 2018, Congress reorganized DNDO as part of the Countering Weapons of Mass Destruction Office (CWMD). In this restructuring of DNDO as CWMD, radiological and nuclear threat prevention remained within the CWMD office.<sup>14</sup> To account for this, H.R. 542 also provides authority for DHS S&T to conduct research and development on radiological and nuclear response and recovery at the NUSTL facility.

### III. LEGISLATIVE HISTORY

H.R. 542 was introduced in the U.S. House of Representatives by Representatives Kathleen Rice and Peter King on January 14, 2019. On June 10, 2019, the Act passed in the House of Representatives by a roll call vote (395–3) under suspension of the rules.<sup>15</sup>

The Act was referred to the Senate Committee on Homeland Security and Governmental Affairs on June 11, 2019. The Committee considered H.R. 542 at its July 22, 2020 business meeting. Chairman Johnson offered a substitute amendment that authorized an exception for DHS S&T to administer a laboratory to conduct research and development on radiological and nuclear response and recovery. H.R. 452, as amended by the Johnson substitute amendment, was reported favorably by voice vote *en bloc* by the Committee. Senators present for the *en bloc* votes on the substitute amendment and the Act as amended were Johnson, Portman, Paul, Lankford, Romney, Scott, Enzi, Hawley, Peters, Carper, Hassan, Harris, and Rosen.

### IV. SECTION-BY-SECTION ANALYSIS OF THE ACT, AS REPORTED

#### *Section 1. Short title*

This section establishes the short title of the Act as the “Supporting Research and Development for First Responders Act.”

#### *Section 2. The National Urban Security Technology Laboratory*

Subsection (a) tasks the Secretary, acting through the Under Secretary for S&T, to designate the existing NUSTL as a laboratory to (1) test and evaluate emerging technologies, and (2) conduct research and development to assist emergency response providers in preparing for, and protecting against, threats of terrorism.

Subsection (b) describes the laboratory as the NUSTL, which was previously known as the EML, and codifies the transfer to DHS.

<sup>12</sup> *Id.*

<sup>13</sup> Security and Accountability for Every (SAFE) Port Act of 2006, Pub. L. No. 109–347, § 501(b)(2), 120 Stat. 1884, 1935 (2006).

<sup>14</sup> *Doing Business with the Domestic Nuclear Detection Office (DNDO)*, U.S. Dep’t of Homeland Sec., [https://www.dhs.gov/doing-business-dndo#:~:text=policy%20or%20programs-,Doing%20Business%20with%20the%20Domestic%20Nuclear%20Detection%20Office%20\(DNDO\),well%20as%20other%20DHS%20elements](https://www.dhs.gov/doing-business-dndo#:~:text=policy%20or%20programs-,Doing%20Business%20with%20the%20Domestic%20Nuclear%20Detection%20Office%20(DNDO),well%20as%20other%20DHS%20elements) (last updated July 16, 2009).

<sup>15</sup> Supporting Research and Development for First Responders Act, H.R. 542, 116th Cong. § 2 (2019), <https://www.congress.gov/bills/116th-congress/house-bill/542/text?q=%7B%22search%22%3A%5B%22Kathleen+rice%22%5D%7D&r=567&s=3>.

Subsection (c) requires the designated laboratory to conduct tests, evaluations, and assessments of current and emerging technologies, including cybersecurity technologies, for emergency response providers. This subsection also requires the laboratory to conduct research and development on radiological and nuclear response and recovery. In addition, it requires the laboratory to act as a technical advisor to emergency response providers and carry out other activities that the Secretary determines appropriate. Lastly, this subsection creates an exception for S&T to administer a lab that is authorized to conduct research and development on radiological and nuclear response and recovery.

#### V. EVALUATION OF REGULATORY IMPACT

Pursuant to the requirements of paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee has considered the regulatory impact of this Act and determined that the Act will have no regulatory impact within the meaning of the rules. The Committee agrees with the Congressional Budget Office's statement that the Act contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

#### VI. CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

U.S. CONGRESS,  
CONGRESSIONAL BUDGET OFFICE,  
*Washington, DC, October 30, 2020.*

Hon. RON JOHNSON,  
*Chairman, Committee on Homeland Security and Governmental Affairs, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 542, the Supporting Research and Development for First Responders Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Lindsay Wylie.

Sincerely,

PHILLIP L. SWAGEL,  
*Director.*

Enclosure.

<b>H.R. 542, Supporting Research and Development for First Responders Act</b>			
As ordered reported by the Senate Committee on Homeland Security and Governmental Affairs on July 22, 2020			
By Fiscal Year, Millions of Dollars	2021	2021-2025	2021-2030
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	*	*	not estimated
Statutory pay-as-you-go procedures apply?	No	<b>Mandate Effects</b>	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2031?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No
* = between zero and \$500,000.			

H.R. 542 would codify laboratory programs that currently exist at the Department of Homeland Security (DHS). Because DHS is currently carrying out activities similar to those that would be required by this act and any new activities required under the legislation would not require substantial action by the department, CBO estimates that implementing H.R. 542 would not have a significant cost. Any spending would be subject to the availability of appropriated funds.

On May 22, 2019, CBO transmitted a cost estimate for H.R. 542, the Supporting Research and Development for First Responders Act, as ordered reported by the House Committee on Homeland Security on May 15, 2019. The two pieces of legislation are similar, and CBO's estimates of their budgetary effects are the same.

The CBO staff contact for this estimate is Lindsay Wylie. The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.

#### VII. CHANGES IN EXISTING LAW MADE BY THE ACT, AS REPORTED

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows: (existing law proposed to be omitted is enclosed in brackets, new matter is printed in italic, and existing law in which no change is proposed is shown in roman):

### **HOMELAND SECURITY ACT OF 2002**

\* \* \* \* \*

#### **SEC. 1. SHORT TITLE; TABLE OF CONTENTS.**

(a) \* \* \*

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.

\* \* \* \* \*

*Sec. 321. National Urban Security Technology Laboratory.*

\* \* \* \* \*

**TITLE III—SCIENCE AND TECHNOLOGY IN  
SUPPORT OF HOMELAND SECURITY**

\* \* \* \* \*

**SEC. 321. NATIONAL URBAN SECURITY TECHNOLOGY LABORATORY.**

(a) *IN GENERAL.*—The Secretary, acting through the Under Secretary for Science and Technology, shall designate the laboratory described in subsection (b) as an additional laboratory pursuant to the authority under section 308(c)(2). Such laboratory shall be used to test and evaluate emerging technologies and conduct research and development to assist emergency response providers in preparing for, and protecting against, threats of terrorism.

(b) *LABORATORY DESCRIBED.*—The laboratory described in this subsection is the laboratory—

(1) known, as of the date of the enactment of this section, as the National Urban Security Technology Laboratory;

(2) previously known as the Environmental Measurements Laboratory; and

(3) transferred to the Department pursuant to section 303(1)(E).

(c) *LABORATORY ACTIVITIES.*—The laboratory designated pursuant to subsection (a), shall—

(1) conduct tests, evaluations, and assessments of current and emerging technologies, including, as appropriate, cybersecurity of such technologies that can connect to the internet, for emergency response providers;

(2) notwithstanding the amendments made by section 501(b)(2) of the SAFE Port Act (Public Law 109–347; 120 Stat. 1935), conduct research and development on radiological and nuclear response and recovery;

(3) act as a technical advisor to emergency response providers; and

(4) carry out other such activities as the Secretary determines appropriate.

\* \* \* \* \*