108TH CONGRESS 2D SESSION H.R.4141

To authorize appropriations for the Homeland Security Department's Directorate of Science and Technology, establish a program for the use of advanced technology to meet homeland security needs, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

April 2, 2004

Mr. KOLBE (for himself, Mr. MCHUGH, Mr. FLAKE, Mr. HAYWORTH, Mr. SHADEGG, Mr. RENZI, and Mr. HINOJOSA) introduced the following bill; which was referred to the Committee on Science, and in addition to the Committees on Ways and Means and Judiciary, 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

A BILL

- To authorize appropriations for the Homeland Security Department's Directorate of Science and Technology, establish a program for the use of advanced technology to meet homeland security needs, 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 "Border Infrastructure
- 5 and Technology Integration Act of 2004".

TITLE I—BORDER SECURITY

2 SEC. 101. VULNERABILITY AND THREAT ASSESSMENT.

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3 (a) STUDY.—The Under Secretary of Homeland Security for Border and Transportation Security, in con-4 5 sultation with the Under Secretary of Homeland Security for Science and Technology and the Under Secretary of 6 7 Homeland Security for Information Analysis and Infra-8 structure Protection, shall study the technology, equip-9 ment, and personnel needed to address security 10 vulnerabilities within the United States for each field of-11 fice of the Bureau of Customs and Border Protection that 12 has responsibility for any portion of the United States bor-13 ders with Canada and Mexico. The Under Secretary shall 14 conduct follow-up studies at least once every 5 years.

(b) REPORT TO CONGRESS.—The Under Secretary
shall submit a report to Congress on the Under Secretary's findings and conclusions from each study conducted under subsection (a) together with legislative recommendations, as appropriate, for addressing any security
vulnerabilities found by the study.

(c) AUTHORIZATION OF APPROPRIATIONS.—There
are authorized to be appropriated to the Department of
Homeland Security Directorate of Border and Transportation Security such sums as may be necessary for fiscal
years 2005 through 2010 to carry out any such rec-

ommendations from the first study conducted under sub section (a).

3 SEC. 102. DISCRETIONARY ACCOUNTS FOR FIELD OFFICES.

4 (a) IN GENERAL.—The Secretary of Homeland Secu-5 rity may provide up to \$15,000 per fiscal year to any field office of the Bureau of Customs and Border Protection 6 7 to be used by that office in developing innovative tech-8 niques and technologies to carry out its duties with respect 9 to the inspection of articles and individuals entering the 10 United States. Financial assistance provided to a field office under this subsection shall be in addition to any 11 12 amounts made available to that office under any other provision of law. 13

14 (b) APPLICATIONS.—To receive funding provided 15 under subsection (a) a field office shall submit an applica-16 tion to the Secretary, at such time and in such manner 17 as the Secretary may require, describing the purpose for 18 which the additional funding is requested in sufficient de-19 tail to permit the Secretary to determine whether the addi-20 tional funding is necessary and appropriate.

21 (c) REPORTS.—

(1) INFORMATION-SHARING.—Not later than 30
days after the head of a field office implements a
new technique or technology developed in whole or in
part with funding provided under subsection (a), the

1	head of the field office shall submit a report to the
2	Commissioner of the Bureau of Customs and Border
3	Protection of the Department of Homeland Security,
4	the Under Secretary of Homeland Security for Bor-
5	der and Transportation Security, the Under Sec-
6	retary of Homeland Security for Science and Tech-
7	nology, and the heads of the other field offices re-
8	garding the technique or technology in order for suc-
9	cessful techniques and technologies to be replicated
10	by other offices.
11	(2) CONTENTS.—The report shall include—
12	(A) a description of the technique or tech-
13	nology developed or implemented with funds
14	provided under subsection (a); and
15	(B) information on—
16	(i) how the technique or technology
17	was employed to enhance border security;
18	(ii) the effectiveness of the technique
19	or technology for enhancing border secu-
20	rity; and
21	(iii) the need for future development
22	or implementation of additional techniques
23	or technology;
24	(C) accounting for expenditures of funds
25	received under subsection (a);

1 (D) requesting more funding under sub-2 section (a) if the head of the field office believes 3 it necessary to improve or further develop the 4 technique or technology, or to develop addi-5 tional techniques or technologies; and 6 (E) providing an explanation of the need 7 for such additional funding and a justification 8 for the amount requested. 9 SEC. 103. USE OF AERIAL SURVEILLANCE TECHNOLOGIES 10 FOR BORDER SECURITY. 11 (a) PILOT PROGRAM.—Not later than 180 days after 12 the date of the enactment of this Act, the Under Secretary 13 of Homeland Security for Science and Technology, in consultation with the Under Secretary of Homeland Security 14 15 for Border and Transportation Security, the Under Secretary of Homeland Security for Information Analysis and 16 17 Infrastructure Protection, the Secretary of Defense, and the Administrator of the Federal Aviation Administration 18 19 shall develop a pilot program to utilize, or increase the

20 utilization of, aerial surveillance technologies to enhance
21 the border security of the United States. In developing the
22 program, the Under Secretary shall—

(1) consider current and proposed aerial surveillance technologies that could be utilized to enhance the border security of the United States;

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1	(2) assess the threats to the border security of
2	the United States that can be addressed by the utili-
3	zation of such technologies; and
4	(3) assess the feasibility and advisability of uti-
5	lizing such technologies to address such threats, in-
6	cluding an assessment of the technologies considered
7	best suited to address such threats.
8	(b) Additional Requirements.—
9	(1) IN GENERAL.—The pilot program shall in-
10	clude the utilization of a variety of aerial surveil-
11	lance technologies in a variety of topographies and
12	areas (including both populated and unpopulated
13	areas) on both the northern and southern borders of
14	the United States in order to evaluate, for a range
15	of circumstances—
16	(A) the significance of previous experiences
17	with such technologies in homeland security or
18	critical infrastructure protection for the utiliza-
19	tion of such technologies for border security;
20	(B) the cost, utility, and effectiveness of
21	various technologies for border security, includ-
22	ing varying levels of technical complexity; and
23	(C) liability, safety, and privacy concerns
24	relating to the utilization of such technologies
25	for border security.

1 (2) USE OF UNMANNED AERIAL VEHICLES.— 2 The aerial surveillance technologies utilized in the 3 pilot program shall include unmanned aerial vehi-4 cles.

5 (c) IMPLEMENTATION.—The Under Secretary of
6 Homeland Security for Border and Transportation Secu7 rity shall implement the pilot program developed under
8 this section.

9 (d) REPORT.—Not later than 1 year after imple-10 menting the pilot program under subsection (a), the Under Secretary shall submit a report on the program to 11 12 the Senate Committee on Commerce, Science, and Trans-13 portation, the House of Representatives Committee on Science, and the House of Representatives Select Com-14 15 mittee on Homeland Security. The Under Secretary shall include in the report a description of the program together 16 with such recommendations as the Under Secretary finds 17 appropriate, including recommendations for terminating 18 the program, making the program permanent, or enhanc-19 20 ing the program.

21 SEC. 104. USE OF GROUND SURVEILLANCE TECHNOLOGIES 22 FOR BORDER SECURITY.

(a) PILOT PROGRAM.—Not later than 180 days after
the date of the enactment of this Act, the Under Secretary
of Homeland Security for Science and Technology, in con-

sultation with the Under Secretary of Homeland Security 1 2 for Border and Transportation Security, the Under Sec-3 retary of Homeland Security for Information Analysis and 4 Infrastructure Protection, and the Secretary of Defense, 5 shall develop a pilot program to utilize, or increase the utilization of, ground surveillance technologies to enhance 6 7 the border security of the United States. In developing the 8 program, the Under Secretary shall—

9 (1) consider various current and proposed
10 ground surveillance technologies that could be uti11 lized to enhance the border security of the United
12 States;

(2) assess the threats to the border security of
the United States that could be addressed by the
utilization of such technologies; and

(3) assess the feasibility and advisability of utilizing such technologies to address such threats, including an assessment of the technologies considered
best suited to address such threats.

20 (b) Additional Requirements.—

(1) IN GENERAL.—The pilot program shall include the utilization of a variety of ground surveillance technologies in a variety of topographies and
areas (including both populated and unpopulated
areas) on both the northern and southern borders of

1	the United States in order to evaluate, for a range
2	of circumstances—
3	(A) the significance of previous experiences
4	with such technologies in homeland security or
5	critical infrastructure protection for the utiliza-
6	tion of such technologies for border security;
7	(B) the cost, utility, and effectiveness of
8	such technologies for border security; and
9	(C) liability, safety, and privacy concerns
10	relating to the utilization of such technologies
11	for border security.
12	(2) TECHNOLOGIES.—The ground surveillance
13	technologies utilized in the pilot program shall in-
14	clude the following:
15	(A) Video camera technology.
16	(B) Sensor technology.
17	(C) Motion detection technology.
18	(c) Implementation.—The Under Secretary of
19	Homeland Security for Border and Transportation Secu-
20	rity shall implement the pilot program developed under
21	this section.
22	(d) REPORT.—Not later than 1 year after imple-
23	menting the pilot program under subsection (a), the
24	Under Secretary shall submit a report on the program to
25	the Senate Committee on Commerce, Science, and Trans-

portation, the House of Representatives Committee on 1 2 Science, and the House of Representatives Select Com-3 mittee on Homeland Security. The Under Secretary shall 4 include in the report a description of the program together 5 with such recommendations as the Under Secretary finds appropriate, including recommendations for terminating 6 7 the program, making the program permanent, or enhanc-8 ing the program.

9 SEC. 105. ENHANCEMENT OF COMMUNICATIONS INTEGRA10 TION AND INFORMATION SHARING ON BOR11 DER SECURITY.

12 (a) IN GENERAL.—Not later than 180 days after the 13 date of the enactment of this Act, the Secretary of Homeland Security, acting through the Under Secretary of 14 15 Homeland Security for Border and Transportation Security, in consultation with the Under Secretary of Home-16 land Security for Science and Technology, the Under Sec-17 retary of Homeland Security for Information Analysis and 18 Infrastructure Protection, the Assistant Secretary of Com-19 20 merce for Communications and Information, and other ap-21 propriate Federal, State, local, and tribal agencies, shall 22 develop and implement a plan—

(1) to improve the communications systems of
the departments and agencies of the Federal Government in order to facilitate the integration of com-

munications among the departments and agencies of
 the Federal Government and State, local government
 agencies, and Indian tribal agencies on matters re lating to border security; and

5 (2) to enhance information sharing among the
6 departments and agencies of the Federal Govern7 ment, State and local government agencies, and In8 dian tribal agencies on such matters.

9 (b) REPORT.—Not later than 1 year after imple-10 menting the plan under subsection (a), the Secretary shall 11 submit a copy of the plan and a report on the plan, includ-12 ing any recommendations the Secretary finds appropriate, 13 to the Senate Committee on Commerce, Science, and Transportation, the House of Representatives Committee 14 15 on Science, and the House of Representatives Select Committee on Homeland Security. 16

17 SEC. 106. BORDER SECURITY COORDINATION.

18 (a) IN GENERAL.—The Under Secretary of Home-19 land Security for Border and Transportation Security, in consultation with the Under Secretary of Homeland Secu-20 21 rity for Science and Technology and the Under Secretary 22 of Homeland Security for Information Analysis and Infra-23 structure Protection, shall work with Federal, State, local, 24 and tribal agencies on law enforcement, emergency re-25 sponse, or security-related responsibilities for areas on or

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adjacent to the United States borders with Canada and
Mexico to develop and implement a plan to ensure that
border security is not compromised—
(1) when jurisdiction over an area or facility
passes from one agency to another;
(2) in areas of shared jurisdiction; or
(3) when one Federal agency relinquishes juris-
diction to another pursuant to a memorandum of
understanding.
(b) Key Elements of Plan.—In developing the
plan, the Under Secretary shall focus particularly on—
(1) the coordination of emergency responses to
border security events;
(2) improved data-sharing and communications
among the responsible agencies; and
(3) research and development relating to tech-
nology and systems for improved coordination
among the responsible agencies.
(c) REPORT.—Not later than 1 year after imple-
menting the plan under subsection (a), the Under Sec-
retary shall transmit a report to the Senate Committee
on Commerce, Science, and Transportation, the House of
Representatives Committee on Science, the House of Rep-
resentatives Select Committee on Homeland Security, and

other appropriate committees of Congress on the develop ment and implementation of the plan.

3 SEC. 107. MONITORING FOR BORDER AREA BIOTERRORISM 4 ATTACKS.

5 (a) IN GENERAL.—The Secretary of Homeland Secu6 rity and the Secretary of Health and Human Services
7 shall execute a memorandum of understanding between
8 the Department of Homeland Security and the Depart9 ment of Health and Human Services establishing a sys10 tem—

(1) to monitor hospitals along the United
States borders with Canada and Mexico for signs of
potential health threats or bioterror attacks; and

14 (2) to ensure cooperation and information-shar15 ing between the departments with respect to such
16 threats or attacks.

17 (b) REPORT.—Not later than 1 year after the memorandum of understanding is executed and annually there-18 19 after, the Secretaries shall transmit a joint report to the 20 Congress on the system established under subsection (a) 21 during the preceding calendar year. The report shall in-22 clude a description of measures taken to deal with any 23 problems reported, proposals for improving the system, 24 and recommendations (including legislative recommenda-25 tions if appropriate), to improve or expand the system.

TITLE II—DEPARTMENT OF HOMELAND SECURITY DIREC TORATE OF SCIENCE AND TECHNOLOGY

5 SEC. 201. AUTHORIZATION OF APPROPRIATIONS.

6 (a) FISCAL YEAR 2005.—There are authorized to be appropriated to the Secretary of Homeland Security for 7 8 the Directorate of Science Technology and 9 \$1,039,350,000 for fiscal year 2005 to carry out title III 10 of the Homeland Security Act of 2002 (6 U.S.C. 181 et seq.), of which— 11

12 (1) \$129,300,000 shall be for radiological/nu13 clear countermeasures;

14 (2) \$407,000,000 shall be for biological coun15 termeasures;

16 (3) \$62,700,000 shall be for chemical and high
17 explosives countermeasures;

18 (4) \$39,700,000 shall be for the standards and19 State and local program;

20 (5) \$34,000,000 shall be for the Conventional
21 Missions/Components Program;

(6) \$30,000,000 shall be for university pro-grams;

(7) \$21,000,000 shall be for emerging threats;

1 (8) \$76,000,000 shall be for the Rapid Proto-2 typing Program; 3 (9) \$101,900,000 shall be for threat and vul-4 nerability testing and assessment; for 5 (10)\$61,000,000 shall be Counter 6 MANPADS/Critical Infrastructure Protection; 7 (11) \$52,600,000 shall be for salary and ex-8 penses; and 9 (12) \$24,150,000 shall be for Research and De-10 velopment Consolidation transferred funds. 11 (b) FISCAL YEAR 2006.—There are authorized to be 12 appropriated to the Secretary of Homeland Security for 13 the Directorate of Science and Technology 14 \$1,045,656,000 for fiscal year 2006 to carry out title III 15 of the Homeland Security Act of 2002 (6 U.S.C. 181 et seq.), of which— 16 17 (1) \$133,179,000 shall be for radiological/nu-18 clear countermeasures; 19 (2) \$419,210,000 shall be for biological coun-20 termeasures; 21 (3) \$64,581,000 shall be for chemical and high 22 explosives countermeasures; 23 (4) \$40,891,000 shall be for the standards and 24 State and local program;

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1	(5) \$35,020,000 shall be for the Conventional
2	Missions/Components Program;
3	(6) \$30,900,000 shall be for university pro-
4	grams;
5	(7) \$21,630,000 shall be for emerging threats;
6	(8) \$78,280,000 shall be for the Rapid Proto-
7	typing Program;
8	(9) \$104,957,000 shall be for threat and vul-
9	nerability testing and assessment;
10	(10) \$62,830,000 shall be for Counter
11	MANPADS/Critical Infrastructure Protection; and
12	(11) \$54,178,000 shall be for salary and ex-
13	penses.
14	(c) FISCAL YEAR 2007.—There are authorized to be
15	appropriated to the Secretary of Homeland Security for
16	the Directorate of Science and Technology
17	1,077,025,680 for fiscal year 2007 to carry out title III
18	of the Homeland Security Act of 2002 (6 U.S.C. 181 et
19	seq.), of which—
20	(1) $$137,174,370$ shall be for radiological/nu-
21	clear countermeasures;
22	(2) \$431,786,300 shall be for biological coun-
23	termeasures;
24	(3) \$66,518,430 shall be for chemical and high
25	explosives countermeasures;

1	(4) \$42,117,730 shall be for the standards and
2	State and local program;
3	(5) \$36,070,600 shall be for the Conventional
4	Missions/Components Program;
5	(6) \$31,827,000 shall be for university pro-
6	grams;
7	(7) \$22,278,900 shall be for emerging threats;
8	(8) \$80,628,400 shall be for the Rapid Proto-
9	typing Program;
10	(9) \$108,105,710 shall be for threat and vul-
11	nerability testing and assessment;
12	(10) \$64,714,900 shall be for Counter
13	MANPADS/Critical Infrastructure Protection; and
14	(11) \$55,803,340 shall be for salary and ex-
15	penses.
16	(d) FISCAL YEAR 2008.—There are authorized to be
17	appropriated to the Secretary of Homeland Security for
18	the Directorate of Science and Technology
19	\$1,109,336,450 for fiscal year 2008 to carry out title III
20	of the Homeland Security Act of 2002 (6 U.S.C. 181 et
21	seq.), of which—
22	(1) \$141,289,601 shall be for radiological/nu-
23	clear countermeasures;
24	(2) \$444,739,889 shall be for biological coun-
25	termeasures;

1	(3) \$68,513,983 shall be for chemical and high
2	explosives countermeasures;
3	(4) \$43,381,262 shall be for the standards and
4	State and local program;
5	(5) \$37,152,718 shall be for the Conventional
6	Missions/Components Program;
7	(6) \$32,781,810 shall be for university pro-
8	grams;
9	(7) \$22,947,267 shall be for emerging threats;
10	(8) \$83,047,252 shall be for the Rapid Proto-
11	typing Program;
12	(9) \$111,348,881 shall be for threat and vul-
13	nerability testing and assessment;
14	(10) \$66,656,347 shall be for Counter
15	MANPADS/Critical Infrastructure Protection; and
16	(11) \$57,477,440 shall be for salary and ex-
17	penses.
18	SEC. 202. RESEARCH NEEDS AND PRIORITIES REPORT.
19	(a) IN GENERAL.—Not later than 180 days after the
20	date of enactment of this Act and annually thereafter, the
21	Under Secretary of Homeland Security for Science and
22	Technology shall transmit to the Senate Committee on
23	Commerce, Science, and Transportation, the House of
24	Representatives Committee on Science, and the House of
25	Representatives Select Committee on Homeland Security

a report on research and development needs and priorities 1 2 identified for all elements of the Department of Homeland 3 Security. 4 (b) CONTENT.—The report shall include a description of— 5 6 (1) the research and development needs in sup-7 port of the Department's missions; 8 (2) priorities established for directing, funding, 9 and conducting research and development activities 10 of the Department; 11 (3) the Directorate of Science and Technology's 12 efforts and priorities to meet the research and devel-13 opment needs of the Department; (4) the progress that the Science and Tech-14 15 nology Directorate has made in its efforts to meet 16 the needs described in paragraph (1); and 17 (5) strategies to coordinate and integrate all re-18 search, development, demonstration, testing, and 19 evaluation activities of the Department. 20 SEC. 203. NATIONAL ACADEMY OF SCIENCES. 21 (a) REVIEW.—Not later than 60 days after the initial 22 report is submitted under section 202, the Under Sec-23 retary of Homeland Security for Science and Technology 24 shall contract with the National Academy of Sciences to conduct a review of the Science and Technology Direc-25

1	torate's research and development needs and priorities de-
2	scribed in the report. The review shall include—
3	(1) an assessment of the Directorate's ability to
4	meet the research and development needs of the De-
5	partment of Homeland Security;
6	(2) a review of the process used to determine
7	research priorities;
8	(3) a review of the grant proposal evaluation
9	process; and
10	(4) a review of the technology transfer process.
11	(b) REPORT.—Not later than 1 year after the date
12	of enactment of this Act, the National Academy of
13	Sciences shall report to the Senate Committee on Com-
14	merce, Science, and Transportation, the House of Rep-
15	resentatives Committee on Science, and the House of Rep-
16	resentatives Select Committee on Homeland Security on
17	the results of the review conducted under subsection (a).
18	SEC. 204. RESEARCH AND DEVELOPMENT ACTIVITIES RE-
19	PORTS.
20	Not later than 60 days after the initial report is sub-
21	mitted under section 202, the Secretary of Homeland Se-
22	curity shall—
23	(1) identify all research and development activi-
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24 ties in the Department of Homeland Security that

1	are not conducted within the Directorate of Science
2	and Technology; and
3	(2) consolidate those activities so as to elimi-
4	nate needless duplication of effort.

5 SEC. 205. PERSONNEL PLAN.

6 Not later than 3 months after the date of enactment 7 of this Act, the Under Secretary of Homeland Security 8 for Science and Technology shall submit a personnel staff-9 ing plan for the Science and Technology Directorate to 10 the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on 11 12 Science. The plan shall include information on recruitment 13 procedures, compensation arrangements, and the number and qualifications of employees required for the Direc-14 15 torate.

16 SEC. 206. HOMELAND SECURITY INSTITUTE.

17 Section 312 of the Homeland Security Act of 200218 (6 U.S.C. 192) is amended by striking subsection (g).

19SEC. 207. TECHNOLOGY TRANSFER AND LICENSING OF-20FICE.

(a) ESTABLISHMENT OF THE OFFICE.—The Under
Secretary of Homeland Security for Science and Technology shall establish a Technology Transfer and Licensing Office within the Directorate of Science and Technology. The Office shall—

(1) facilitate the transfer of technologies into
 and out of the Directorate of Science and Tech nology; and

4 (2) handle the licensing activities for the Direc5 torate of Science and Technology.

6 (b) TECHNOLOGY TRANSFER PLAN.—Not later than
7 180 days after the date of enactment of this Act, the
8 Under Secretary shall develop and implement a technology
9 transfer plan for the Directorate. The technology transfer
10 plan shall include—

(1) a framework of oversight and administrative
requirements for carrying out technology transfer
activities;

(2) a description of how the Office will identify,
assess, license, and monitor research and development projects that the Department and its related
facilities determine have a potential for public and
commercial application; and

(3) procedures for the dissemination of information on Federally owned or originated products,
processes, and services to interested parties.

(c) PLAN AND REPORT.—The Under Secretary shall
transmit a copy of the plan, together with recommendations (including legislative recommendations) if any, to the
Senate Committee on Commerce, Science, and Transpor-

tation, the House of Representatives Committee on
 Science, and the House of Representatives Select Com mittee on Homeland Security within 1 year after the plan
 is implemented.

5 SEC. 208. HOMELAND SECURITY TECHNOLOGY INVEST-6 MENT STUDY.

7 (a) IN GENERAL.—Within 90 days after the date of 8 enactment of this Act, the Secretary of Homeland Security 9 shall initiate and complete a study to determine the feasi-10 bility of funding a nonprofit government-sponsored enterprise for the purpose of investing in private sector enter-11 12 prises to support research and development of new tech-13 nologies that show promise for homeland security applications. 14

15 (b) REPORT.—The Secretary shall transmit a report, with the Secretary's findings, conclusions, and rec-16 ommendations (including legislative recommendations, if 17 appropriate), within 120 days after the date of enactment 18 of this Act to the Senate Committee on Commerce, 19 20 Science, and Transportation, the House of Representa-21 tives Committee on Science, and the House of Representatives Select Committee on Homeland Security. 22

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