

# Teaching New Dogs Old Tricks: Reshaping the Department of Homeland Security's Technology Development Infrastructure

By  
Michael Greenberger<sup>1</sup>

## The Present and Unnecessary Homeland Security Technology Deficit

At the opening of the 110<sup>th</sup> Congress, the newly minted Democratic House leadership introduced as its first piece of legislation a 273 page bill, H.R. 1<sup>2</sup>, which was designed to implement those recommendations of the 9/11 Commission<sup>3</sup> not yet adopted by Congress more than two years after publication of the Commission's report. A centerpiece of H.R. 1 was the requirement that the Department of Homeland Security ("DHS") inspect all air cargo within three years of the legislation's enactment and all cargo destined for the United States by sea within five years.<sup>4</sup>

The 9/11 Commission recommended this type of vigilance based on the widespread and well founded fear that terrorists would smuggle weapons of mass destruction within such cargo.<sup>5</sup> By the close of 2005, the 9/11 Commission, reconstituted as non-profit study group<sup>6</sup>, harshly criticized the then Republican controlled Congress for ignoring its by then more than one year old dictates on this subject. It gave the Congress failing grades for its lackadaisical approach.<sup>7</sup>

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<sup>1</sup> Law School Professor, University of Maryland School of Law; Director, University of Maryland Center for Health and Homeland Security ("CHHS"). A.B., Lafayette College; J.D., University of Pennsylvania. The author wishes to thank Mona Kalash, J.D. candidate, University of Maryland School of Law (2007 expected), CHHS Staff Attorney Erin Hahn, J.D., CHHS Law & Policy Analyst Jonathan Minkove J.D., and Research Assistants Anthony Villa, and Rafael Maryahin J.D. candidates, University of Maryland School of Law (2007 expected), for their substantial assistance in preparation for this article.

<sup>2</sup> H.R. 1, 110th Cong. (2007), available at [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110\\_cong\\_bills&docid=f:h1eh.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h1eh.txt.pdf).

<sup>3</sup> National Commission on Terrorist Attacks upon the United States, The 9/11 Commission Report, (2004) (hereinafter 9/11 Commission Report), available at <http://www.gpoaccess.gov/911/pdf/fullreport.pdf>.

<sup>4</sup> H.R. 1, 110th Cong. §§ 406, 501 (2007).

<sup>5</sup> 9/11 Commission Report 387 (2004).

<sup>6</sup> 9/11 Public Discourse Project, *Final Report on 9/11 Commission Recommendations*, [http://www.9-11pdp.org/press/2005-12-05\\_report.pdf](http://www.9-11pdp.org/press/2005-12-05_report.pdf).

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

H.R. 1 remedied that problem and passed overwhelmingly, 299- 128, with strong bipartisan support.

What is noteworthy, however, is that the opposition to H.R. 1, including opposition by the Bush Administration and the Department of Homeland Security, was premised on the fact that there was no effective “see through” technology to speed the inspection of air and sea cargo and that, because this cargo would therefore have to be inspected by inadequate technology or the human eye, commercial traffic would be ground to a halt.<sup>8</sup> As was pointed out by the Democratic leadership, in fact, this bleak assessment of the available technology was dead wrong. Technology is available and, for example, it has been successfully deployed in the busiest container port in the world, Hong Kong.<sup>9</sup> However, it is quite telling that DHS failed to recognize the availability of the technology necessary to implement the widely praised recommendations of the 9/11 Commission.

A second episode is also revealing of the rather lackadaisical approach of DHS to technology aiding devices. It arises from the British thwarting on August 10, 2006 of a plot by terrorists to use liquid explosives to blow up passenger jets bound for the United States from Great Britain. From that day on, the DHS’s Transportation Security Administration (“TSA”) principal weapon against the use of liquid explosives in air traffic has been the imposition of burdensome and time consuming bans and restrictions on drinks, cosmetics, and medications to be carried on board by passengers. In the initial wake of the August 2006 plot, TSA said it had

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<sup>8</sup> 110th Cong. Rec. E71 (daily ed. Jan. 11, 2007) (statement of Rep. John L. Mica), *available at* [http://frwebgate.access.gpo.gov/cgi-bin/getpage.cgi?dbname=2007\\_record&page=E71&position=all](http://frwebgate.access.gpo.gov/cgi-bin/getpage.cgi?dbname=2007_record&page=E71&position=all).

<sup>9</sup> Press Release, U.S. Rep. Edward J. Markey, House Passes Markey Measures To Screen 100% of Air and Ship Cargo in 9/11 Bill (Jan. 9, 2007), *available at* <http://markey.house.gov/index.php?option=content&task=view&id=2515&Itemid=125> (last visited January 14, 2007); *See also* Stephen Flynn, *Port Security Is Still A House of Cards*, *Far East Economic Review*, January/February 2006, *available at* [http://www.cfr.org/publication/9629/port\\_security\\_is\\_still\\_a\\_house\\_of\\_cards.html?breadcrumb=%2Fbios%2Fbio%3Fgroupby%3D3%26hide%3D1%26id%3D3301%26filter%3D2006](http://www.cfr.org/publication/9629/port_security_is_still_a_house_of_cards.html?breadcrumb=%2Fbios%2Fbio%3Fgroupby%3D3%26hide%3D1%26id%3D3301%26filter%3D2006) (last visited January 14, 2007).

no foreknowledge of the danger of liquid explosives; nor did it have technology that could detect this danger short of the bans and restrictions imposed.

It soon turned out, however, that the United States government “ha[d] know[n] for years that liquid explosives posed a threat to airline safety. . .but . . . made little progress in deploying technology that could help defend against such attacks. . .”<sup>10</sup> In the year after the 1995 terror plot to bomb twelve American planes using liquid explosives was discovered in the Philippines, the White House Commission on Aviation Safety created a package of projects, including projects to develop bomb detection technologies.<sup>11</sup> In response, Congress increased the Federal Aviation Administration’s budget from \$785 million to \$9.1 billion, with additional money for security improvements and research and development.<sup>12</sup> However, by 2003, DHS “redirected more than half of the \$110 million it had for research and development . . . delaying research in areas including detecting liquid explosives.”<sup>13</sup>

Most distressing is the fact that technology to detect liquid explosives presently exists, but is not being used.<sup>14</sup> Three companies manufacture devices that can detect liquid explosives, and one device which “can ‘see’ through glass or plastic bottles and identify any of 2,500 different chemical compounds.”<sup>15</sup> The government’s lack of knowledge about, or reluctance to use, this technology after over ten years of research and billions of dollars was an embarrassment after the August 2006 plot. Absent the efforts of British intelligence, the plot would likely have been carried out because the proper technology to detect the explosive materials was still not in

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<sup>10</sup> Matthew L. Wald and Eric Lipton, *Threats and Responses: Technology; Liquid Threat is Hard to Detect*, N.Y.TIMES, Aug. 12, 2006 at A14.

<sup>11</sup> James Ott, *Security Rates ‘Top Priority,’* AVIATION WEEK & SPACE TECHNOLOGY, Sept. 16, 2006.

<sup>12</sup> *Airports Still Fall Short in Screening for Explosives, Critics Say*, DALLAS MORNING NEWS, Nov. 25, 1997.

<sup>13</sup> Matthew L. Wald and Eric Lipton, *Threats and Responses: Technology; Liquid Threat is Hard to Detect*, N.Y.TIMES, Aug. 12, 2006 at A14.

<sup>14</sup> Hiawatha Bray, *Technology Available, But US Delays Liquid Bomb Detection*, BOSTON GLOBE, Aug. 17, 2006.

<sup>15</sup> *Id.*

place.<sup>16</sup> On August 11, 2006, a day after the foiled plot, DHS finally decided to initiate a program to obtain detection technology and planned to test “devices using 500 milliliter-sized bottles filled with liquid explosives that the government knows terrorists are likely to use.”<sup>17</sup>

### **The Failing DHS Technology Structure**

1. *The S&T Directorate and HSARPA.* The aforementioned lack of familiarity with technological advancements within just the last half year is startling given the critical importance Congress attached to DHS being at the forefront of discovering and encouraging advanced technology that would detect and prevent terror attacks. For example, shortly after September 11, 2001, the Select Committee on Homeland Security boldly stated “that technological innovation is the Nation's front-line defense against the terrorist threat.”<sup>18</sup>

In that vein, when Congress created DHS through the Homeland Security Act of 2002, it insisted that a key pillar of the department be a Science and Technology Directorate (“S&T”),<sup>19</sup> whose foremost objective is to ensure that the Nation’s technology is being deployed to examine safely container ship interiors, communicate between different emergency response departments to avoid inoperability, protect our subway and transit passengers with synchronized video cameras and chemical and biological sensors--all examples of technologies that can greatly increase the security of United States residents.<sup>20</sup>

That legislation also created within the department the Homeland Security Advanced Research Projects Agency (“HSARPA”), which was to be modeled after the highly successful Defense Advanced Research Projects Agency (“DARPA”) within the Department of Defense

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<sup>16</sup>*Id.*

<sup>17</sup> Chris Strohm, *DHS Science Chief Calls Liquid Explosives Detection a Priority*, GovExec.com, Sept. 13, 2006, available at [http://www.govexec.com/story\\_page.cfm?articleid=35010&dcn=e\\_gvet](http://www.govexec.com/story_page.cfm?articleid=35010&dcn=e_gvet) (last visited Jan. 15, 2007).

<sup>18</sup> H.R. REP. NO. 107-609, at 118 (2002), *reprinted in* 2002 U.S.C.C.A.N. 1352, 1356.

<sup>19</sup> Homeland Security Act, 6 U.S.C. § 231 (2002 & West Supp. 2004).

<sup>20</sup> *See* Secretary Michael Chertoff, Remarks Before the Senate Homeland Security and Governmental Affairs Committee (July 14, 2005), *available at* [http://www.dhs.gov/xnews/testimony/testimony\\_0037.shtm](http://www.dhs.gov/xnews/testimony/testimony_0037.shtm), (last visited Jan. 15, 2007).

(“DOD”).<sup>21</sup> DARPA has become legendary in implementing programs that nurture the development of highly successful technological efforts that have advanced substantially and dramatically DOD’s war fighting ability.<sup>22</sup>

Since 2003, Congress has appropriated \$3.95 billion for the S&T Directorate and HSARPA to ensure the effectiveness of those agencies.<sup>23</sup> Yet, despite the noble Congressional aspirations for these and other DHS technology efforts, it was clear by July, 2005 that the department had failed miserably in using its ample statutory and financial tools effectively. At that time, the then new Secretary of Homeland Security, Michael Chertoff, candidly admitted that “[i]n aviation, our security and our convenience and efficiency can be strengthened by better use of technology, both existing and next generation technology,” and that “[t]here is more opportunity, much more opportunity” to use the SAFETY Act to encourage the private sector to develop technology.<sup>24</sup> Criticism of these lagging bureaucracies continues to mount.<sup>25</sup> Indeed, the confusion over the availability of technology to detect liquid explosives described above<sup>26</sup> corroborates the widespread disappointment on this front.

2. *The SAFETY Act.* There is probably no better example of the failure of DHS to implement its technology mandates than its maladministration of the Support Anti-Terrorism by Fostering Effective Technologies Act of 2002 (the “SAFETY Act”).<sup>27</sup> The purpose of the

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<sup>21</sup> Homeland Security Act, 6 U.S.C. § 307 (2002).

<sup>22</sup> DARPA Overview, *Bridging the Gap, An Overview of The Agency and Its Programs*, available at: [http://www.darpa.mil/body/pdf/BridgingTheGap\\_Feb\\_05.pdf](http://www.darpa.mil/body/pdf/BridgingTheGap_Feb_05.pdf).

<sup>23</sup> Genevieve J. Knezo, *Homeland Security Research and Development Funding, Organization, and Oversight*, CRS Report for Congress RS21270, at 4 (2005), available at: [shelby.senate.gov/legislation/Homeland.pdf](http://shelby.senate.gov/legislation/Homeland.pdf), (last visited Jan. 14, 2007).

<sup>24</sup> DHS Press Release, *Secretary Michael Chertoff U.S. Department of Homeland Security Second Stage Review Remarks*, Jul. 13, 2005, available at: [http://www.dhs.gov/xnews/speeches/speech\\_0255.shtm](http://www.dhs.gov/xnews/speeches/speech_0255.shtm), (last visited Jan. 14, 2007).

<sup>25</sup> See U.S. Government Accountability Office Report to Congressional Committees, *Further Action Needed to Promote Successful Use of Special DHS Acquisition Authority*, GAO-05-136, at 28 (2004); see also *TSA and DHS Are Researching and Developing Technologies, but Need to Improve R&D Management*, GAO-04-890, at 6 (2004).

<sup>26</sup> See *supra* notes 9-16 and accompanying text.

<sup>27</sup> 6 U.S.C. §441-444 (2002 & West Supp. 2004).

SAFETY Act was to provide “a narrow set of liability protections for manufacturers of these important technologies”<sup>28</sup> to “ensure that the threat of potential liability does not deter the development and manufacture of technologies that could prevent, detect, identify, or deter acts of terrorism.”<sup>29</sup> The SAFETY Act’s provisions divide technologies into two classes, each class having different benefits.<sup>30</sup> A manufacturer may apply to have a product or service “designated” as a qualified anti-terrorism technology (“QATT”).<sup>31</sup> Upon designation, if the seller’s technology is used and harms the plaintiff, the seller is immune from punitive damages, joint and several liability, and economic damages.<sup>32</sup> Here, liability is restricted to an amount of non-economic damages in direct proportion to seller’s percentage of responsibility for harm to plaintiff (only if plaintiff suffered physical harm), cannot exceed seller’s liability insurance coverage, and is off-set by the amount of plaintiff’s collateral source compensation.<sup>33</sup>

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<sup>28</sup> H.R. REP. NO. 107-609, at 118.

<sup>29</sup> Department of Homeland Security, *Notice of Expedited Treatment for SAFETY Act Applications Relating to Liquid-Based Explosive Detection Devices, Processes and Related Services* (August 21, 2006) available at: <https://www.safetyact.gov/DHS/SActHome.nsf/IndNews/45CA7DF10C0297E5852571D1006E8691?OpenDocument>, (last visited Jan. 14, 2007).

<sup>30</sup> Homeland Security Act, 6 U.S.C. § 441-442 (2002 & West Supp. 2004).

<sup>31</sup> 6 U.S.C.A. §441(b) (stating that “The Secretary may designate anti-terrorism technologies that qualify for protection under the system of risk management set forth in this part in accordance with criteria that shall include, but not be limited to, the following:

- (1) Prior United States Government use or demonstrated substantial utility and effectiveness.
- (2) Availability of the technology for immediate deployment in public and private settings.
- (3) Existence of extraordinarily large or extraordinarily unquantifiable potential third party liability risk exposure to the Seller or other provider of such anti-terrorism technology.
- (4) Substantial likelihood that such anti-terrorism technology will not be deployed unless protections under the system of risk management provided under this part are extended.
- (5) Magnitude of risk exposure to the public if such anti-terrorism technology is not deployed.
- (6) Evaluation of all scientific studies that can be feasibly conducted in order to assess the capability of the technology to substantially reduce risks of harm.
- (7) Anti-terrorism technology that would be effective in facilitating the defense against acts of terrorism, including technologies that prevent, defeat or respond to such acts.” *Id.*)

(also stating that QATT is later defined as “any product, equipment, service . . . , device, or technology . . . designed, developed, modified, or procured for the specific purpose of preventing, detecting, identifying, or deterring acts of terrorism or limiting the harm such acts might otherwise cause, that is designated as such by the Secretary.” *SAFETY Act*, 6 U.S.C.A. 444(1).

<sup>32</sup> 6 U.S.C.A. §442(b)(2)(A) & (B) (2002 & West Supp. 2003).

<sup>33</sup> 6 U.S.C.A. §442(b)(2)(A) & (B) (West Supp. 2003). 6 U.S.C.A. at §442(c). 6 U.S.C.A. at §443(c).

The Act allows DHS to “certify” technologies that already have achieved QATT designation and place them on the Approved Product List for Homeland Security. If a seller gains certification, it is allowed to assert the government contractor defense which, if successful, provides a seller nearly absolute immunity.<sup>34</sup> Once a seller is certified, there is a rebuttable presumption that the government contractor defense applies, which is overcome only if plaintiff proves seller acted “fraudulently” or “with willful misconduct” in applying for SAFETY Act liability protection.<sup>35</sup> Moreover, placing technology on an official DHS “Approved Product List,” obviously has benefits that far exceed the immunity granted in terms of marketing to the federal, state, and local governments, as well as the private sector.

DHS delayed implementing final regulations under the SAFETY Act for four years.<sup>36</sup> Trying to run the program under interim regulations, DHS created a process that has been widely viewed as expensive, cumbersome, and time consuming. As one prominent commentator explained that this process is “overly burdensome because it requires the submission of a variety of information, some of which is unnecessary, tedious to obtain and not meaningful because the responses would be too speculative.”<sup>37</sup> The National Defense Industrial Association and the

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<sup>34</sup> 6 U.S.C.A. §442(d)(1)-(3) (West Supp. 2003); Regulations Implementing the SAFETY Act, 68 Fed. Reg. at 59,691; Boyle v. United Technologies Corp., 487 U.S. 500, 512-13 (1998) (stating original formulation of government contractor defense).

<sup>35</sup> 6 U.S.C.A. §442(d)(1) (West Supp. 2003).

<sup>36</sup> Interim regulations were in effect two years after the passage of the SAFETY Act, and final rules took effect on July 10, 2006. See Statement of Jay M. Cohen, Under Secretary of Science and Technology Directorate, Department of Homeland Security, before the Committee on Homeland Security Subcommittee on Management, Integration and Oversight And Subcommittee on Preparedness, Science and Technology. September 13, 2006, available at: <https://www.safetyact.gov/> (last visited Jan. 14, 2007); see also 71 Fed. Reg. at 33147.

<sup>37</sup> Jeniffer De Jesus and Bruce Shirk, *Homeland Security Update: The SAFETY Act Interim Regulations*, 18: ANDREWS GOVERNMENT CONTRACT LITIGATION REPORTER No. 01, 12 (May 10, 2004) (citing Letter from the American Bar Association Section of Public Contract Law, to the Department of Homeland Security (Dec. 15, 2003), <http://dmses.dot.gov/docimages/p77/261806.pdf> (on file with author) (hereinafter *ABA comment letter*); Letter from the National Defense Industrial Association, to the Department of Homeland Security (Dec. 15, 2003), [http://dmses.dot.gov/docimages/pdf88/261840\\_web.pdf](http://dmses.dot.gov/docimages/pdf88/261840_web.pdf) (on file with author) (hereinafter *NDIA comment letter*).

American Bar Association complained that the “extensive cost and pricing data discourage[s] many sellers of [the technology] from submitting applications.”<sup>38</sup>

The review process under the initial application procedure is seemingly unending. Once the applications are submitted, DHS has 30 days to evaluate the package and inform the applicant of missing information. Once DHS deems the application complete, S&T has another 90 days, which it can extend without cause or explanation, to recommend to the Under Secretary whether it should be designated/certified.<sup>39</sup> During this time DHS may require more information from the applicant, ask the applicant further questions about the application, discuss the application with other government agencies or private entities, or perform studies.<sup>40</sup> After the S&T assistant secretary makes a recommendation, the DHS Under Secretary has another 30 days to notify the applicant of the decision.<sup>41</sup> The applicant can be approved, denied, or, more likely, once again asked to submit more information.<sup>42</sup>

The application process was so defective that, in August 2006, DHS itself was ultimately forced to concede that “through the practice of issuing numerous ‘requests for information,’ in some cases the Department might have caused unnecessary delay and imposed undue burdens on applicants.”<sup>43</sup> It further recognized at that time that the “initial SAFETY Act Application Kit was overly burdensome and the application process could be streamlined and made less bureaucratic.”<sup>44</sup> DHS stated that it had been working to “refine” the Application Kit “to reduce

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<sup>38</sup> *Id.* (citing NDIA comment letter, *supra* note 37, at 3; ABA comment letter, *supra* note 37, at 24-25).

<sup>39</sup> *Id.*

<sup>40</sup> *Id.*

<sup>41</sup> *Id.*

<sup>42</sup> *Id.*

<sup>43</sup> *The SAFETY Act: Hearing before the Subcomm. on Management, Integration, and Oversight and the Subcomm. on Emergency Preparedness, Sci., and Tech.*, (hereinafter *The Safety Act Hearing*) 109th Cong. (2006) (statement of Jay Cohen, Undersecretary for Sci. and Tech. Directorate for the U.S. Dept. of Homeland Sec.).

<sup>44</sup> Department of Homeland Security, *New Application Kit* (August 16, 2006), available at: <https://www.safetyact.gov/DHS/SActHome.nsf/IndNews/F313081A4673E156852571C7005535F8?OpenDocument>

burdens and to focus more precisely on collecting the information necessary for the review of a particular anti-terrorism technology.”<sup>45</sup>

Shortly after the Final SAFETY Act Rules went into effect in July 2006, DHS did, in fact, issue a new Application Kit for the program on August 14, 2006, hoping to encourage more manufacturers to apply to certify or designate their technologies.<sup>46</sup> However, the Final Rules do not change the inefficient application evaluation timeline outlined above. The S&T still has 30 days to notify an applicant that receipt of the application is complete, 90 days to review the application, and the ability to extend without reason the review period for another 45 days.<sup>47</sup> So, while the review process could be complete in 120 days, it could take as long as 165 days if DHS decides to avail itself of the additional review time. There is an expedited review option, but DHS has the discretion of determining which applications are put on a fast-track and even for those that are, no specific timeline is given.<sup>48</sup>

In a misleading statement, the Under Secretary of the Science & Technology Directorate, Jay Cohen, announced in a September 15, 2006 Press Release that “[p]erhaps the most dramatic change in the Final Rules is the reduction of the evaluation cycle from 150 days to a maximum of 120 days,” a cycle that will be “strictly adhered to.”<sup>49</sup> But the Final Rules do not guarantee this 120 day maximum because of the ability of DHS to tack on an additional 45 days without

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(hereinafter *New Application Kit*) (last visited Jan. 14, 2007); see also *The Safety Act Hearing*, 109th Cong. (2006) (statement of Jay Cohen, Undersecretary for Sci. and Tech. Directorate for the U.S. Dept. of Homeland Sec.).

<sup>45</sup> Weckstein & Hopkins, *supra* note 36 (citing Directorate of Science and Technology, Department of Homeland Security, *SAFETY Act Application Kit* (2003), available at: [https://www.safetyact.gov/DHS/SActHome.nsf/RefDocs/Full+Application+Kit+\(pdf\)/\\$FILE/SActAppKit.pdf](https://www.safetyact.gov/DHS/SActHome.nsf/RefDocs/Full+Application+Kit+(pdf)/$FILE/SActAppKit.pdf)). (last visited Jan. 14, 2007).

<sup>46</sup> *New Application Kit*, *supra* note 44.

<sup>47</sup> 71 Fed. Reg. 33163.

<sup>48</sup> *Id.* See also Jonathan Marino, *DHS to Speed Contractors' Exemptions from Lawsuits*, GovExec.com, Aug. 16, 2006, available at: <http://www.govexec.com/dailyfed/0806/081606j1.htm> (last visited Jan. 15, 2007).

<sup>49</sup> *The Safety Act Hearing*, September 13, 2006, available at: <https://www.safetyact.gov/> (last visited Jan. 15, 2007).

giving “reason or cause for such an extension.”<sup>50</sup> Additionally, the new Application Kit, while designed to be “more interactive and flexible,” is still burdensome, and DHS estimates that it will take an average of 120 hours to complete, possibly as many as 180 hours.<sup>51</sup> While DHS views the new Application Kit and the Final Rules as refinements providing much-needed clarification to the SAFETY Act application process, they do not provide much evidence of an improved or more streamlined evaluation process. Moreover, the changes do especially little for manufacturers who have an existing application pending and who may want to update the application if they achieve a breakthrough in their technology. As it stands, such an applicant can not update the existing application, but will likely have to start from scratch.<sup>52</sup>

3. *Certifying an Old and Controversial Anthrax Vaccine.* While the pace of certifications has picked up since issuance of the new Application Kit<sup>53</sup>, the quality of that decision making has been called into question by a troubling and ironic recent example of a designation and certification under the SAFETY Act, i.e., the August 2006 designation and certification of BioThrax (Anthrax Vaccine Adsorbed), a technology of Emergent BioSolutions Inc., as a QATT.<sup>54</sup> This action was granted despite the fact that the plain language and legislative history of the SAFETY Act make it quite clear that the statute was not to be used for vaccine

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<sup>50</sup> 71 Fed. Reg. 33167.

<sup>51</sup> *The Safety Act Hearing*, September 13, 2006, available at: <https://www.safetyact.gov/> (last visited Jan. 15, 2007), see also New SAFETY Act Application Kit, page 4, available at: [https://www.safetyact.gov/DHS/SActHome.nsf/23158AD7D420AEDB852571C70056BE33/\\$FILE/Application%20Kit%20Version%202.pdf](https://www.safetyact.gov/DHS/SActHome.nsf/23158AD7D420AEDB852571C70056BE33/$FILE/Application%20Kit%20Version%202.pdf), (last visited Jan. 15, 2007).

<sup>52</sup> Jonathan Marino, *DHS to Speed Contractors' Exemptions from Lawsuits*, GovExec.com, Aug. 16, 2006, available at: <http://www.govexec.com/dailyfed/0806/081606j1.htm> (last visited Jan. 15, 2007).

<sup>53</sup> Since the issuance of the new application kit, in August of 2006, there have been four new certifications. See Department of Homeland Security, *Designations for Homeland Security*, <https://www.safetyact.gov/DHS/SActHome.nsf/Main?OpenFrameset&6DNLP8> (last visited January 14, 2007); Department of Homeland Security, “*Approved Product List for Homeland Security*,” <https://www.safetyact.gov/DHS/SActHome.nsf/Main?OpenFrameset&6HMFY5> (last visited January 14, 2007). DHS insists that “since March 2005, over 90 additional technologies have received SAFETY Act protections;” *New Application Kit*, *supra* note 44, however, 90 technologies are not listed on the designation and certification lists listed on DHS’ website. *Id.*

<sup>54</sup> *Id.*

development.<sup>55</sup> However, beyond that problem of legislative intent is the fact that, Biothrax is an older vaccine that has had its share of controversy.<sup>56</sup>

Various public health experts have argued that Biothrax causes health problems, particularly among women and people prone to autoimmune diseases.<sup>57</sup> The potential side effects include Guillain-Barre, a condition that can kill or paralyze; other neurological disorders; chronic fatigue syndrome and depression.<sup>58</sup> The validity of these concerns is highlighted by a 2004 ruling in *Doe v. Rumsfeld*,<sup>59</sup> where the district court granted an injunction blocking mandatory shots administered to military personnel until the FDA reviewed the license of Emergent BioSolutions.<sup>60</sup> The vaccine has been the subject of much controversy within the military, with high-ranking military officers even refusing to take the vaccine out of fear of contracting neurological and physical illnesses.<sup>61</sup> The vaccine, which has been around for decades, is administered to military personnel, especially to those in high-risk areas such as the

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<sup>55</sup> See generally Michael Greenberger, The 800 Pound Gorilla Sleeps: The Federal Government's Lackadaisical Liability and Compensation Policies in the Context of Pre-Event Vaccine Immunization Programs, J. HEALTH CARE L. & POL'Y. 1, 7 (2005).

<sup>56</sup> See *infra* notes 59-69 and accompanying text.

<sup>57</sup> Greg Gordon, *Mandatory Anthrax Vaccinations Raise Concerns*, Veterans for America: Addressing the Causes, Conduct and Consequences of War, available at: <http://www.veteransforamerica.org/ArticleID/9140> (Dec. 22, 2006). (last visited Jan. 14, 2007).

<sup>58</sup> *Id.*

<sup>59</sup> 341 F. Supp. 2d 1 (D.D.C. 2004); modified by *Doe v. Rumsfeld*, 2005 WL 774857 (D.D.C. Feb 06, 2005) (unreported opinion) (granting defendants' Motion to Modify Injunction and ordering the injunction modified to allow voluntary use of the vaccine "pursuant to the terms of a lawful emergency use authorization ("EUA") pursuant to section 564 of the Federal Food, Drug, and Cosmetic Act.") *Id.*; rendered moot by *Doe v. Rumsfeld*, 172 Fed.Appx. 327 (D.C.Cir. Feb 09, 2006) (Not selected for publication in the Federal Reporter, NO. 04-5440) (holding that the action was moot based on the Food and Drug Administration's classification of the vaccine as "safe and effective.") *Id.*

<sup>60</sup> *Id.*; See also *Doe v. Rumsfeld*, 297 F. Supp. 2d 119,134-135 (D.D.C. 2003). ("Describing the diseases, Plaintiffs argue that their injuries from non-consensual inoculations would be irreparable. They note that the informed consent documents provided to civilians as a result of the anthrax laden letters in the Fall of 2001 identify side effects such as Guillain-Barre Syndrome, multiple sclerosis, angiodema, aseptic meningitis, severe injection site inflammation, diabetes, and systemic lupus erythmatosis.")

<sup>61</sup> Andrew Conte, *Vaccine Refusal Draws Crime Charge*, Cincinnati-Kentucky Post, Jan. 5, 2000, 8A.

Middle East and Korea, where it is feared the inhaled form of anthrax could be used in a bioterror attack.<sup>62</sup>

In *Doe*, military personnel and DOD civilian contract employees successfully alleged that the FDA's Final Rule and Order authorizing the use of the Biothrax was invalid, because the vaccine was never proven safe and effective against inhalation or "weaponized" anthrax, even though the Final Rule stated it was effective "independent of the route of exposure."<sup>63</sup>

Although the FDA subsequently declared the vaccine safe, health concerns related to the drug remain. A May 2006 GAO report states that "data on the prevalence and duration of short-term reactions to the vaccine are limited" and may be more adverse in women.<sup>64</sup> The report goes on to conclude that "the long term safety of the licensed vaccine has not been studied."<sup>65</sup> Mark Zaid, an attorney for the plaintiffs in the *Doe* case, continues to claim that Biothrax "is an unnecessary, unproven and potentially unsafe vaccine."<sup>66</sup> Accordingly, the same group of plaintiffs in *Doe* recently filed another suit in response to the government's decision to reinstate the mandatory vaccination program, asserting the FDA's 2005 approval of the vaccine is faulty and that the drug remains unsafe.<sup>67</sup>

Thus, at the very time that DHS was unaware of readily available technologies to detect, for example, liquid explosives, it made BioThrax, an old and notorious anthrax vaccine still in

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<sup>62</sup> Greg Gordon, *Anthrax Shots Raise Questions, Pentagon Restarting Mass Vaccinations Despite Fears*, MONTEREY COUNTY HERALD, Dec. 24, 2006.

<sup>63</sup> 341 F. Supp. 2d at 3 (2004) (citing the Final Rule and Order, Bio. Prods, Bacterial Vaccines & Toxoids, [Implementation of Efficacy Review](#); 69 Fed.Reg. 255, 265-66 at 257-59 (Jan. 5, 2004)).

<sup>64</sup> GAO 06-756, *Anthrax: Federal Agencies Have Taken Some Steps to Validate Sampling Methods and to Develop a Next Generation Anthrax Vaccine*, May 2006, p. 18. available at: <http://www.gao.gov/new.items/d06756t.pdf>, (last visited Jan. 16, 2007).

<sup>65</sup> GAO 06-756, *Anthrax: Federal Agencies Have Taken Some Steps to Validate Sampling Methods and to Develop a Next Generation Anthrax Vaccine*, May 2006, p. 18. available at: <http://www.gao.gov/new.items/d06756t.pdf>, (last visited Jan. 16, 2007).

<sup>66</sup> Christopher Lee, *Mandatory Anthrax Shots to Return*, WASHINGTON POST, October 17, 2006, at A3.

<sup>67</sup> Josh White, *Defense Employees Set For Another Suit to Halt Mandatory Anthrax Shots*, WASH. POST, Dec. 13, 2006, at A19.

the midst of litigation about its safety, one of the few technologies to receive certification as a QATT, along with the broad law suit immunity protection that status confers.<sup>68</sup> This is surely a case of effective manufacturer lobbying outweighing the substantive underpinnings of the SAFETY Act.<sup>69</sup>

### **An Historical Model: World War II Mobilization Boards**

It is evident that the DHS technology infrastructure and the SAFETY Act's method of developing and obtaining anti-terrorism technologies are not working. DHS must find other methods to encourage and develop technology in an efficient manner. This article recommends that DHS create a highly "interactive and flexible" process by using existing legislative authority and funding to establish a small, but highly skilled, Department of Homeland Security Technology Mobilization Board ("DTMB"), which would act like the highly praised War Mobilization Board ("WMB") used during World War II. The DTMB would review and search out anti-terrorism technology and quickly decide whether the new technology should be used and promoted in the homeland security effort. By creating a quick review process, companies, researchers, and inventors will promptly know not only of their product liability status, but whether their technology will be used and recommended by DHS, i.e., placed on DHS

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<sup>68</sup> The SAFETY Act is not the only legislation that provides such lawsuit immunity. In December of 2005, Congress adopted the same approach of shielding manufacturers from liability used in the SAFETY Act to create the Public Readiness and Emergency Preparedness Act (PREP Act), Pub. L. 109-148, div. C, 119 Stat. 2680, 2818-32 (2005) (to be codified at [42 U.S.C. §§ 247d-6d-6\(e\)](#)). The Act gives drug companies complete immunity from civil liability for anything related to the development and production of drugs, vaccines or devices. The relevant provision "grant[s] immunity from suit and liability to any covered person for any claims for loss relating to the administration or use of a covered countermeasure." *Id.* Led by Senator Kennedy, the bill has faced great opposition from the Democrats for its failure to protect the public. Kennedy has proposed a new bill that will address the needs of both the pharmaceuticals as well as the American Public (*See* Senator Edward M. Kennedy, Statement on Pandemic Flu Funding/Liability on DOD Appropriations (Dec. 17, 2005) *available at*: <http://www.americanchronicle.com/articles/viewArticle.asp?articleID=4319>) (last visited Jan 14, 2007).

<sup>69</sup> Biothrax's manufacturer has had repeated lobbying successes despite controversy surrounding the vaccine, including having five million doses of BioThrax added to the national stockpile, and spending more than \$1 million on aggressive lobbying since 2005 to get health agency officials to agree to an even larger deal. See, e.g., Eric Lipton, *Bid to Stockpile Bioterror Drugs Stymied by Setbacks*, NY TIMES, Sept. 18, 2006 at A1.

“Approved Product List.” As shown below, the WMB provides historical precedent for a highly skilled and highly nimble administrative process for the evaluation of anti-terrorism technologies.<sup>70</sup>

### *1. The War Mobilization Board.*

The War Mobilization Board (“WMB”) was created in 1943 by President Franklin Roosevelt in order to convert a peace time economy to one focused on supporting the Nation’s World War II war fighting needs.<sup>71</sup> The board was composed of a director<sup>72</sup> and a small staff of no more than ten people.<sup>73</sup> In his executive order, President Roosevelt described that the purpose of the new office was “[t]o unify the activities of the Federal agencies and departments engaged in or concerned with production, procurement, distribution or transportation of military or civilian supplies, materials, and products and to resolve and determine controversies between such agencies or departments.”<sup>74</sup> In serving in this capacity, the WMB and its successor agencies had the authority to issue “directives and policies” to carry out its charter.<sup>75</sup> The creation of this office won and historically maintained widespread approval.<sup>76</sup>

The small WMB staff was comprised of a handful of talented government officials, with recently retired Supreme Court Justice, James Byrnes, serving as the director.<sup>77</sup> Byrnes had been “a former member of the House of Representatives, Senate, Supreme Court, and former director

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<sup>70</sup> DHS has also recently mentioned that it has “instituted a program to conduct SAFETY Act reviews in parallel with key anti-terrorism procurement processes. While the Department has institutionalized that process within DHS, we are taking additional steps to appropriately institutionalize SAFETY Act reviews with procurements of anti-terrorism technologies throughout the Federal government.” *New Application Kit*, *supra* note 44.

<sup>71</sup> Ernest R. May, *Small Office, Wide Authority*, N.Y. TIMES, October 30, 2001, at A17.

<sup>72</sup> Harold C. Relyea, *Homeland Security: The Presidential Coordination Office*, CONG. RESEARCH SERVICE, CRS REPORT RL31148, Mar. 30, 2004, at CRS- 6, available at: <http://www.fas.org/sgp/crs/rl31148.pdf>.

<sup>73</sup> *Id.*

<sup>74</sup> Exec. Order No. 9347, 8 Fed. Reg. 7207 (June 1, 1943).

<sup>75</sup> *See Id.*

<sup>76</sup> Herman Miles Somers, *Presidential Agency: OWMR, the Office of War Mobilization and Reconversion* (Cambridge, MA: Harvard University Press, 1950), p.52.

<sup>77</sup> Alan L. Gropman, *Mobilizing U.S. Industry in World War II*, INSTITUTE FOR NATIONAL STRATEGIC STUDIES, MCNAIR PAPER SERIES 50, 85 (1996) <http://www.ndu.edu/inss/McNair/mcnair50/mcnair50.pdf>.

of the Office of Economic Stabilization.”<sup>78</sup> The small size of the staff was acknowledged as necessary to foster “the relations of the director with agency heads by bringing promptly to the attention of the director questions requiring his consideration, and to serve agency heads by expediting matters requiring action by the director.”<sup>79</sup> In addition, the size of the staff ensured that it would not “engag[e] in administrative activities and operations and . . . [not] undertak[e] or interfer[e] with the normal functions of other agencies.”<sup>80</sup>

In 1944, Congress statutorily replaced the WMB, created by executive order, with the Office of War Mobilization and Reconversion (OWMR). OWMR was an independent agency whose director was chosen by the president and held a two-year term. Although OWMR staff was larger than WMB, it was still small compared to other government agencies.<sup>81</sup> Professor James Q. Wilson noted that “OWM was a decision maker. . . . OWM ran no programs, created no czars, and had a minuscule budget, [but] [i]t worked.”<sup>82</sup>

## 2. *Why It Worked.*

Prior to the creation of the office, the Roosevelt administration lacked wartime “synchronization.”<sup>83</sup> There was a widespread concern both in and out of government that converting the peacetime economy to a war time footing called for a centralization of the mobilization process.<sup>84</sup> With the WMB, there was a decision-maker quickly organizing the massive changes to the economy dictated by the dire circumstances the war presented.<sup>85</sup> Put

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<sup>78</sup> See Relyea, *supra* note 72.

<sup>79</sup> Somers, *supra* note 76, at 55.

<sup>80</sup> *Id.* at 55-56.

<sup>81</sup> See Somers, *supra* note 76, at 81.

<sup>82</sup> Neil K. Katyal, *Internal Separation of Powers: Checking Today's Most Dangerous Branch From Within*, 115 Yale L.J. 2314, 2339 (2006).

<sup>83</sup> Gropman, *supra* note 77,.

<sup>84</sup> *Id.* at 89.

<sup>85</sup> Somers *supra* note 76, at 5.

simply, “[t]he government lacked a place, where, within a reasonable time, a synthesis could emerge from the struggle.”<sup>86</sup>

The War Mobilization Board format was widely praised during the war and long after as an excellent framework for providing “a strong staff arm for executive policy and program coordination.”<sup>87</sup> One commentator gave several reasons for its well recognized success<sup>88</sup>, including–

- 1) It had direct confidence and backing by the president and was only accountable to him.<sup>89</sup>
- 2) The Board could take quick action directly or through the President. Furthermore, instead of trying to eliminate disputes between agencies, it would “reduce their volume and magnitude through early delineation of general policy and the provision of a locale for final arbitration.”<sup>90</sup>
- 3) The directors had more than great abilities and broad perspective, they “possess[ed] independent position and prestige based on wide experience and public respect.”<sup>91</sup>
- 4) The staff was small and its members were high ranking and of high caliber.<sup>92</sup>

It was also widely recognized that the WMB would not have been such an effective synchronizing tool without the initial competent leadership provided by James Byrnes. Byrnes used his “extensive experience, keen intelligence, and high common sense,” to effectively use the office as a highly effective decision making tool.<sup>93</sup> Historian Alan Milward, explains that the decisions facing Byrnes and the WMB were of major significance and could only be resolved successfully by “possessors of great political power.”<sup>94</sup> The persons making them therefore were required to have full knowledge of the circumstances leading to the dispute, the control of the

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<sup>86</sup> *Id.* at 38-40.

<sup>87</sup> Relyea, *supra* note 72, at 7.

<sup>88</sup> *Id.* at 7-9.

<sup>89</sup> *Id.* at 7-8.

<sup>90</sup> *Id.* at 9.

<sup>91</sup> *Id.* at 9.

<sup>92</sup> *Id.* at 9.

<sup>93</sup> Gropman, *supra* note 77, at 89.

<sup>94</sup> Somers, *supra* note 76, at 65. (quoting Alan Milward, *War, Economy and Society: 1939-1945 110-113* (Los Angeles: University of California Press, 1979)).

administrative machinery to carry out a decision, and the will to make such essential decisions.<sup>95</sup> Byrnes and his colleagues possessed all of these attributes and were the “supreme umpire[s] over the powerful.”<sup>96</sup>

The WMB also leveraged its power by effectively utilizing the staff of various agencies to provide it with relevant information and allowing it to act as a “disinterested decision-maker—judge in effect.”<sup>97</sup>

### **The Proposal: DHS Technology Mobilization Board**

The WMB can be viewed as an historical blueprint for an efficiently run executive branch institution able to encourage, develop, and promote effective homeland security technology. Ironically, President Bush referenced that blueprint, shortly after 9/11, when he created the Office of Homeland Security (OHS) within the Office of the President.<sup>98</sup> According to the President’s initial description of OHS, it was to be located within the White House Office and would be headed by a director who would have Cabinet rank and would report directly to him.<sup>99</sup>

Similar to the WMB, the mission of this office would be, in the President’s words, to “lead, oversee, and coordinate a comprehensive national strategy to safeguard our country against terrorism and respond to any attacks that may come.”<sup>100</sup> On the surface this coordination effort “was reminiscent of the efforts of President Franklin D. Roosevelt to create an effective

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<sup>95</sup> *Id.*

<sup>96</sup> *Id.*

<sup>97</sup> *Id.*

<sup>98</sup> Weekly Compilation of Presidential Documents, vol. 37, Sept. 24, 2001, p. 1349.

<sup>99</sup> *Id.*

<sup>100</sup> *Id.* The White House Office was later established with E.O. 8248. This order organized the primary units within the Executive Office of the President, which had been created by Reorganization Plan 1 of 1939 (53 Stat. 1423). Other than providing appropriations and a personnel authorization for the White House Office, Congress has not legislatively limited the President’s prerogatives regarding its operations. *See also* Relyea, *supra* note 72 at 1.

war mobilization and preparedness coordination entity. Success was realized with the Office of War Mobilization (OWM),” WMB’s successor agency.<sup>101</sup>

Unfortunately, it is now well recognized that President Bush did not give the Office of Homeland Security the same attention, support and prestige that President Roosevelt gave to his war mobilization efforts.<sup>102</sup> In turn, that led Congress and then President Bush himself to support the creation of DHS.<sup>103</sup> However, DHS can now itself learn from the blueprint of the WMB to implement an improved technology initiative.

First, because it should make quick decisions like the War Mobilization Board, a DHS Technology Mobilization Board (“DTMB”) should be a relatively a small institution with the authority to make rapid decisions about which counterterrorism technologies should be promoted within the federal government and to the states and localities.<sup>104</sup> Given the breadth of authority and funding Congress has already provided DHS for technology development, the creation of such a board within DHS should not even require legislation. For example, the board can be created under the legislative authority of, and within, either the S&T directorate, HSARPA, or as a substitute structure for implementing the SAFETY Act. The creation of such a board would lead to a much more “interactive and flexible”<sup>105</sup> administrative structure than, for example, the present cumbersome and confused SAFETY Act application process, which depends upon “sellers” being willing to commit the time and expense to submit themselves to the present highly burdensome, uncertain, and bureaucratic process.

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<sup>101</sup> Relyea, *supra* note 72, at 3.

<sup>102</sup> Susan B. Glasser and Michael Grunwald, *Department's Mission Was Undermined From Start*, WASH POST, Dec. 22, 2005 at A21.

<sup>103</sup> *See id.*

<sup>104</sup> In my work as Director of the University of Maryland Center for Health and Homeland Security, I regularly advise state and local homeland security officials on issues pertaining to the use of reliable advanced technology. That work makes it clear to me that neither states nor localities have adequate resources to seek out the wide array of technology that are offered to them by the private sector, much less the universe of technology that may be applicable..

<sup>105</sup> *See The SAFETY Act Hearing*, *supra* note 43.

Second, as was true of the WMB, the DHS Secretary should populate this board with a cadre of skilled, “high ranking”, “high caliber” cross section of scientists and researchers led by the kind of skilled supervision that former Congressman, Senator, and Supreme Court Justice James Byrnes provided the WMB. In the early days following the 9/11 attacks, then HHS Secretary Thompson showed signs of following this approach when he brought in world renowned and eminent scientists as Drs. D.A. Henderson<sup>106</sup> and Phillip Russell<sup>107</sup>, to assist him in developing medical countermeasures for WMD attacks. Unfortunately, Secretary Thompson’s efforts faltered as Drs. Henderson and Russell had both left HHS by 2004 and scientists of similar prestige and abilities did not replace them.<sup>108</sup>

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<sup>106</sup> On November 1, 2001, HHS Secretary Tommy Thompson named Donald A. Henderson, M.D., to serve as director of the Office of Public Health Preparedness. Dr. Henderson was the founding director of the Center for Civilian Biodefense Studies at the Johns Hopkins Bloomberg School of Public Health. He also served as dean of the School from 1977 to 1990 and he directed the World Health Organization's global smallpox eradication campaign from 1966 to 1977. Dr. Henderson has been recognized for his work by many institutions and governments. In 1986, he was awarded the National Medal of Science, presented by the President of the United States. He is also the recipient of the National Academy of Sciences' highest award, the Public Welfare Medal, and, with two colleagues, he shared the Japan Prize. Additionally, Dr. Henderson earned the Edward Jenner Medal from the Royal Society of Medicine. He has received honorary degrees from thirteen universities and has been honored in fourteen countries. See Press Release, Secretary Thompson Names Henderson to Head Office of Public Preparedness (Nov. 1, 2001). (on file with the United States Department of Health and Human Resources), available at: <http://www.hhs.gov/news/press/2001pres/20011101a.html>; see also Press Release, Henderson to head U.S. Office of Public Health Preparedness, (Nov. 6, 2001) (on file with the Johns Hopkins School of Public Health), available at: [http://www.jhsph.edu/publichealthnews/press\\_releases/PR\\_2001/henderson\\_to\\_head.html](http://www.jhsph.edu/publichealthnews/press_releases/PR_2001/henderson_to_head.html).

<sup>107</sup> Secretary Thompson also announced that Phillip Russell, M.D., would join the department as a special advisor on vaccine development and production. Dr Russell is a retired U.S. Army major general, who was the director of the Army's Medical Research Institute of Infectious Diseases. Dr. Russell, an expert on virology, is also a professor at the Center for Immunization Research at the Johns Hopkins Bloomberg School of Public Health. He has a joint appointment in the School's Department of Molecular Microbiology & Immunology. See *Id.*

<sup>108</sup> A notable example of this occurred between 2004 and 2006 when the post was filled by Stewart Simonson, a former corporate attorney with little public health experience. See Sara Lueck, *Preparing for Emergencies---Health Official Weathers Criticism, Focuses on Public Protection*, WALL ST. J., Dec. 12, 2005 at A4. Critics viewed his appointment an example of cronyism and have referred to him as “the Mike Brown of HHS.” *Id.* At a Homeland Security subcommittee hearing on government response to a chemical or biological attack Simonson admitted that “We’re learning as we go.” In response to this admitted incompetence, Col. Lawrence Wilkerson, former chief of staff for Secretary of State Colin Powell, speculated, “If something comes along that is truly serious...like a major pandemic, you are going to see the ineptitude of this government in a way that will take you back to the Declaration of Independence.” Jeremy Scahill, *Germ Boys and Yes Men*, THE NATION, Nov. 28, 2005. Additionally former Wisconsin Attorney General, Ed Garvey, referred to Simonson as “[A] political hack, a sycophant. . . People just laughed when he was appointed to Amtrak, but when the word came out that he was in charge of bioterrorism, it turned to alarm. When you realize that people's lives are at stake, it's frightening. It's just one of those moments when you say, Oh, my God.” *Id.*

Third, the DTMB could make great head way by simply making effective use of “open sources” concerning important technology. As this article demonstrates above<sup>109</sup>, much of the counterterrorism technology that needs government promotion is already “off the shelf” and well publicized in the everyday media.<sup>110</sup> Moreover, because these kinds of technology are already in use or readily available for use, the manufacturers are apparently not even seeking the kind of immunity that is proffered by the SAFETY Act. Thus, the present time consuming “certification” process might be completely avoided. Finally, because the approach of the DTMB would be to look outward to find technologies, it would not depend on “sellers” navigating a complicated bureaucracy to gain the government’s attention. The DHS “application” process almost certainly limits what DHS examines. The universe of technology considered would almost certainly be much broader than under a system where DHS looks aggressively for products instead of waiting for manufacturers to approach it.

Fourth, a small and highly expert panel would be capable of identifying in a clear manner that technology which is not now available and which does in fact need further research and development.<sup>111</sup> It could publicize needs of this sort and lead a nationwide discussion of the manner in which industry and inventors can bring products to fruition. In that vein, a further service of such a board could be providing guidance on much needed commercialization to

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<sup>109</sup> See *supra* notes 14-15 and accompanying text.

<sup>110</sup> *Id.*

<sup>111</sup> Even where DHS has only had a tangential role in supporting Congressional mandates for technology development, it has placed a choke hold on the progress of those agencies with the principal statutory mission. For example, its dilatory policies have prevented HHS from satisfactorily implement the Bioshield Act. See generally Michael Greenberger, *Choking Bioshield: The Department of Homeland Security's Stranglehold on Biodefense Vaccine Development*, 1 *Microbe* 260 (2006). That was one of the major factors that lead Congress to pass new BioShield legislation at end of the 109th Congress designed to stimulate research in the development of medical countermeasures to, inter alia, WMD attacks. See S. 3678, the Pandemic and All-Hazards Preparedness Act of 2006 (P.L. 109-417).

researchers and inventors, many of whom are not now skilled in bringing ideas to practical fruition.

## **CONCLUSION**

It has been recognized since the 9/11 attacks that the development of counterterrorism technologies is crucial to the United States' ongoing "War on Terror." The present administrative institutions within DHS, including that agency's administration of the SAFETY Act, have proven to be rife with inefficiencies. It is time for the government to try a new solution. By establishing a small, but elite, DTMB, DHS could create a structure for technological innovation that creates positive incentives for corporations, researchers, and inventors to demonstrate qualified anti-terrorism technologies to the federal government. Basing the DTMB organization on the WMB would ensure a more efficient technology development effort. Given the breadth of the statutory technology mandate already within DHS, no new legislation would likely be needed. Moreover, given the limited bureaucratic footprint of the proposed DTMB, relatively little funding would be required. It could almost certainly be found within existing DHS appropriations.

The trick of course is properly staffing and organizing the DTMB. Again, a page should be taken out of President Roosevelt's World War II book, when he staffed the WMB with the highest calibre administrators and experts. The Secretary of DHS must do the same to make this proposal work. If he does, the elite and nimble structure of DTMB should ably plug the technology gap the United States now faces in fighting terrorism.