

# Strategy Research Project

## Tailoring the Military Chemical, Biological, Radiological and Nuclear Response Enterprise

by

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United States Army War College  
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USAWC STRATEGY RESEARCH PROJECT

**Tailoring the Military Chemical, Biological, Radiological and Nuclear Response  
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## **Abstract**

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Presently, the Department of Defense's Chemical, Biological, Radiological and Nuclear (CBRN) Response Enterprise consists of a wide array of Title 10 forces within control of U.S. Northern Command (USNORTHCOM) and numerous Title 32 formations generated by the National Guard. The dedicated response force consists of over 18,000 service members. This expansive enterprise is costly to maintain and service members dedicated to CBRN response units are generally unavailable to the services for overseas deployment purposes. In coming times of increased fiscal restraint and reduced force levels, the Department of Defense (DOD) should consider reducing the size and scope of this enterprise. To properly resize the enterprise, a realistic assessment of the CBRN risk to the Homeland must be considered, and the improved capability of the civil response enterprise must be recognized.





## **Tailoring the Military Chemical, Biological, Radiological and Nuclear Response Enterprise**

Every dollar misspent in the name of security weakens our already precarious economic condition, indebts us to foreign nations, and shackles the future of our children and grandchildren. Our \$16 trillion national debt has become the new red menace not only lurking in our midst, but created and sustained by shortsighted and irresponsible decisions made in Washington.

—Senator Tom Coburn<sup>1</sup>

At the time of this writing, the U.S. national debt stands at approximately 16.5 trillion dollars and continues to grow at an exponential rate. It is clear to most that the U.S. Government must reduce spending as part of a plan to reduce the debt. As stated in the President's National Security Strategy, "The United States Government has an obligation to make the best use of taxpayer money, and our ability to achieve long-term goals depends upon our fiscal responsibility."<sup>2</sup>

The government will appreciably drawn down defense spending in the coming years as part of the overall federal budget reduction effort. The fiscal year 2013 budget plan reduces defense spending by approximately \$6 billion when compared to fiscal year 2012 (disregarding costs of operations in Afghanistan). This reduction is the beginning of a planned \$487 billion cut to defense costs over the next dozen years. In terms of military manning reduction, current projections drawn from the FY2013 defense budget request show an Army active duty end strength decrease from 562,000 in fiscal year 2012 to 490,000 in fiscal year 2017; a 21.8% reduction.<sup>3</sup>

The Department of Defense (DOD) will need to critically examine all functions in order to appropriately down-size the force and reduce overall defense spending. One of these functional responsibilities is Chemical, Biological, Radiological and Nuclear

(CBRN) consequence management. The National Response Framework (NRF) and the Unified Command Plan task the DOD with this responsibility.

In a CBRN incident, the primary focus is to mitigate the effects of a chemical, biological, radiological, or nuclear device. DOD's CBRN response enterprise or "CRE" provides the nation with a dedicated, trained, scalable, and tailorable military CBRN response capability.<sup>4</sup> U.S. Northern Command (USNORTHCOM) directs the CBRN response enterprise. The CRE's mission is to "conduct CBRN response operations within the domestic portion of the USNORTHCOM area of responsibility to support civil authorities in response to CBRN incidents in order to save lives and minimize human suffering."<sup>5</sup>

The military's dedicated CBRN response enterprise is robust. The enterprise consists of a wide array of Title 10 forces controlled by USNORTHCOM and Title 32 forces generated by the National Guard. In total, the enterprise consists of over 18,000 military personnel prepared year-round to respond to CBRN events. The CRE is large and expensive to maintain. The services draw forces dedicated to the CRE from DOD's combat power and for the most part these forces are unavailable for overseas deployment purposes. In addition, significant costs are incurred equipping, training, certifying and evaluating enterprise service members on an ongoing basis.

In response to the requirement to reduce the defense budget, the U.S. Government and the DOD should decide whether or not the current size and scope of the military CBRN response enterprise is warranted. In making this determination, the DOD must consider many questions: Is current guidance mandating the CRE's level of response capability appropriate when balanced against the realistic risk of CBRN

attack? Has DOD addressed redundancies between Title 32 and Title 10 response capabilities? Do we need such a robust DOD CBRN response capability in view of the increased capability of the civil response enterprise?

The days of building expansive enterprises without serious regard to cost-benefit analysis are ending. The challenges before us will require resourcefulness and an integrated approach that wisely balances risks and assets, and that recognizes where we must improve, and where others are better suited to help implement aspects of the strategy.<sup>6</sup>

### Requirements for DOD CBRN Response

*Presidential Policy Directive 8: National Preparedness* (PPD-8) describes the Nation's approach to preparing for the threats and hazards that pose the greatest risk to the security of the United States.<sup>7</sup> President Obama signed PPD-8 in March 2011 and in doing so ordered The Department of Homeland Security (DHS) to produce the National Preparedness Goal which would reflect the policy direction outlined in the National Security Strategy of May 2010. In defining requirements for the National Preparedness Goal, the President mandated the following in PPD-8:

The national preparedness goal shall define the core capabilities necessary to prepare for the specific types of incidents that pose the greatest risk to the security of the Nation, and shall emphasize actions aimed at achieving an integrated, layered, and all-of-Nation preparedness approach that optimizes the use of available resources.<sup>8</sup>

The President further required in PPD-8 that DHS produce a National Preparedness System – “an integrated set of guidance, programs, and processes that will enable the Nation to meet the national preparedness goal.”<sup>9</sup> The desired end-state of our National Preparedness System is to achieve and sustain coordinated capabilities

to prevent, protect against, respond to, and recover from all hazards in a way that balances risk with resources.<sup>10</sup>

The last document mandated by the President in PPD-8 was the National Preparedness Report (NPR), which DHS published in March 2012. The annual NPR evaluates the nation's capabilities with regard to prevention, protection, mitigation, response and recovery from threats and hazards. The results of the first National Preparedness Report will be discussed later in this paper with special consideration given to increasing levels of civil CBRN response capability that exist today.

Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3125.01C, *Defense Response to Chemical, Biological, Radiological, and Nuclear (CBRN) Incidents in the Homeland* was issued in June 2012. This instruction provides Chairman of the Joint Chiefs of Staff policy guidance and operational instructions for DOD response to CBRN incidents in the Homeland.<sup>11</sup> CJCSI 3125.01C assigns responsibilities to the Commander of USNORTHCOM with concern to CBRN response. The inset quotes within the remainder of this section contain tasking from CJCSI 3125.01C concerning DOD CBRN consequence management responsibility.

Plan and integrate the Department of Defense's response support to the [National Response Framework] primary and coordinating agencies for CBRN incidents in the Homeland within the USNORTHCOM AOR. This support will involve capabilities drawn from throughout the Department of Defense, including incident assessment, hazard area extraction, health service support, decontamination, logistics, transportation, (aerial and ground), mortuary affairs, general support, public affairs, and C2 assets to reduce the effects of deliberate and inadvertent CBRN incidents.<sup>12</sup>

This first tasking lists the types of service that DOD must provide in support of civil CBRN response operations.

Plan for CBRN response operations in the Homeland and support to civil authorities accounting for regional, state, and local-level activities.

Planning should include the National Guard and incorporate Active and Reserve Component forces as military responders that, to the extent applicable and practical, are familiar with state emergency plans; and state resources, capabilities, and emergency response activities.<sup>13</sup>

In this paragraph the Chairman specifies utilization of both National Guard and active forces in CBRN response. The Chairman emphasizes that forces that “are familiar with state emergency plans; and state resources, capabilities, and emergency response activities” are preferable. This concept will be examined when addressing Title 32/Title 10 force mix later in this paper. “Be prepared to respond to three nearly simultaneous, geographically dispersed, significant CBRN incidents, or one catastrophic CBRN incident within the USNORTHCOM AOR.”

The final tasking from the Chairman Joint Chiefs of Staff Instruction (CJCSI) 3125.01C is very important and bares significant consideration to the question addressed by this paper. The directive tasks USNORTHCOM to be prepared to respond to three nearly simultaneous significant terrorist attacks, or one “catastrophic CBRN incident” (generally regarded as a 10 kiloton nuclear explosion). The scope of these scenarios is very large, and drives the requirement for a very large DOD response structure. Determining the reasonableness of this requirement is of paramount importance, and will be further discussed when CBRN risk is examined later in this paper.

### DOD’s Role in Disaster Response

The NRF explains the CRE’s role in disaster response. The Department of Homeland Security (DHS) published the NRF in 2008, replacing the National Response Plan (NRP). The NRF is a guide to how the Nation conducts all-hazards response. It is built upon scalable, flexible, and adaptable coordinating structures to align key roles and

responsibilities across the Nation, linking all levels of government, nongovernmental organizations (NGOs), and the private sector.<sup>14</sup> The NRF defines roles and priority in disaster response for local, tribal, state and federal assets.

As stated in the NRF, first response to any incident occurs at the local level. By definition, local responders are closest to the incident and local organizations have first response authority. They organize and integrate their capabilities and resources with neighboring jurisdictions, the State, NGOs, and the private sector.<sup>15</sup>

The next level of disaster response belongs to the State Government. The State Government's role in disaster response is to supplement local response efforts as needed. States have significant resources of their own, including State emergency management and homeland security agencies, State police, health agencies, transportation agencies, incident management teams, specialized teams, and the National Guard.<sup>16</sup> If a state anticipates that its resources may be exceeded, the Governor can request assistance from the Federal Government and/or from other States through mutual aid and assistance agreements such as the Emergency Management Assistance Compact (EMAC)<sup>17</sup>

When a domestic incident occurs that exceeds or is anticipated to exceed local and state capabilities, the Federal Government may provide capabilities and resources to support lower-level responders. Federal institutions can deliver significant resources and capabilities in support to the needs of local and state organizations. The Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 93-288) (Title 42 United States Code Section 5121, et seq.) authorizes the Federal Government to assist State and local governments alleviate the suffering and damage caused by disasters.<sup>18</sup> DOD

can receive requests to provide federal assistance through two avenues: first, through DHS as the lead federal agency, or second, through a governor's request under U.S. Code Title 32 authorities.<sup>19</sup>

When responding to an event within the United States, the Department of Defense will almost always be in a supporting role. Even if the event is a terrorist CBRN incident, consequence management is still managed at the lowest possible level, with DOD providing support as directed and only after being requested by State governments or directed by the President.

#### Non-DOD CBRN Response Capability

The required level of DOD CBRN response capability should be tempered by the overall capabilities and resources available for CBRN response in the non-DOD or civil response enterprise. The more substantial the civil response capability is at the local, state and tribal level, the less need there is for federal military response.

The 2012 National Preparedness Report found that the Nation has increased its collective preparedness not only for the countless threats posed by those who wish to harm America's homeland, but also for the many natural and technological hazards that face the Nation's communities. Areas of national strength include planning, operational coordination, intelligence and information sharing, environmental response/health and safety, mass search and rescue operations, operational communications and public health and medical services.<sup>20</sup> These strengths involve contributions from across the whole community. State, local, tribal, and territorial partners have built a network of multi-disciplinary capabilities that they use to manage the vast majority of emergencies.<sup>21</sup>

The National Response Framework and the National Incident Management System (NIMS) have greatly improved regional and national response capability by providing a common doctrine and by improving operational coordination across the entire response community. The 2010 Nationwide Plan Review indicated a doubling in confidence among states and urban areas in their emergency response plans. Additionally, federal preparedness grant assistance programs have helped build and enhance state, local tribal and territorial capabilities through multi-year investments across mission areas.<sup>22</sup>

Several specific areas of strength in non-DOD response capability addressed in the 2012 NPR bear consideration when analyzing the appropriate size of the DOD CBRN response enterprise. These areas of strength mirror capabilities built into the CRE and may indicate that current levels of DOD capabilities in these areas are no longer required. First, the Nation has developed a mature set of assets for addressing hazardous materials incidents. There are over 1,100 state and local hazardous material (HAZMAT) response teams positioned throughout the country. Together, these teams provide HAZMAT response coverage to over 76% of the Nation's population (see Figure 1).<sup>23</sup> Second, the Nation has a highly mature structural collapse search and rescue capability, due in large part to the build-up of state and local search and rescue assets.<sup>24</sup> Ninety-seven percent of the U.S. population lives within a four-hour drive of a structural collapse team (see Figure 2).<sup>25</sup> Third, the NPR indicates a wide range of partners contribute to a highly responsive public health and medical capability. And fourth, state, local, tribal and territorial law enforcement professionals provide on-scene



security and protection for routine events and are capable in providing security for emergencies of greater size and complexity through extensive mutual aid resources.



Figure 1. Local HAZMAT Team Coverage of the United States.<sup>26</sup>

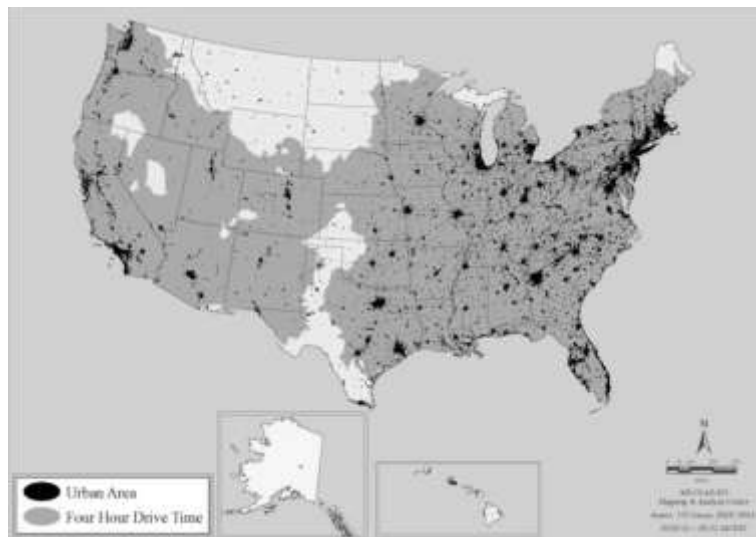


Figure 2. Percent of the Nation's Population within a Four-Hour Drive of a US&R team.<sup>27</sup>

These four capabilities; hazardous materials response, search and rescue, medical services and security are assessed as national strengths by the National Preparedness Report. These same capabilities represent a significant amount of the structure built within the DOD CBRN response enterprise.

## The DOD CBRN Response Enterprise

The Department of Defense maintains a CBRN response enterprise to provide CBRN consequence management in situations that are beyond or expected to be beyond the capabilities of the civil response enterprise. The CRE is a multi-component, layered approach designed to rapidly deploy and employ to save lives, minimize human suffering, mitigate the effects of CBRN environments, and maintain public confidence. The CRE offers a graduated level of support over time starting with basic technical advice and assistance within six hours of an incident with increasing numbers of personnel and support capabilities starting 24-96 hours after the incident.<sup>28</sup> Figure 3 illustrates the current enterprise.

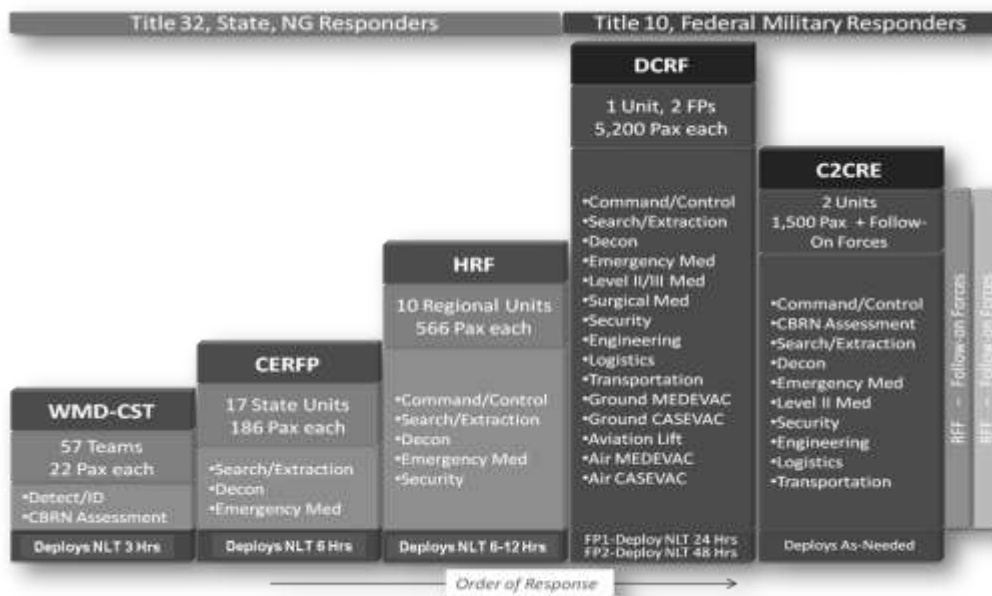


Figure 3. The CBRN Response Enterprise (CRE)<sup>29</sup>

The military CBRN response enterprise is comprised of a Title 32 response from the National Guard and a follow-on Title 10 federal response force. In addition to dedicated CRE forces, follow-on general-purpose forces are available from both the

National Guard and from active duty forces. These follow-on forces are contingency-sourced and are deployed based on the requirements stemming from the incident.

Title 32 State Response

National Guard forces are capable of conducting a wide range of CBRN response operations in the Homeland. They are geographically dispersed throughout the United States and, therefore, may provide the timeliest response to a CBRN incident.<sup>30</sup> Additionally, because forces in Title 32 status remain under the command of the Governor, National Guard units may conduct law enforcement missions and are not subject to the restriction of the Posse Comitatus Act.<sup>31</sup> The unique ties of the National Guard to state, territorial, tribal and local governments make it a force that is optimized for the interagency and intergovernmental environment.<sup>32</sup> Figure 4 illustrates the Title 32 CBRN response enterprise.

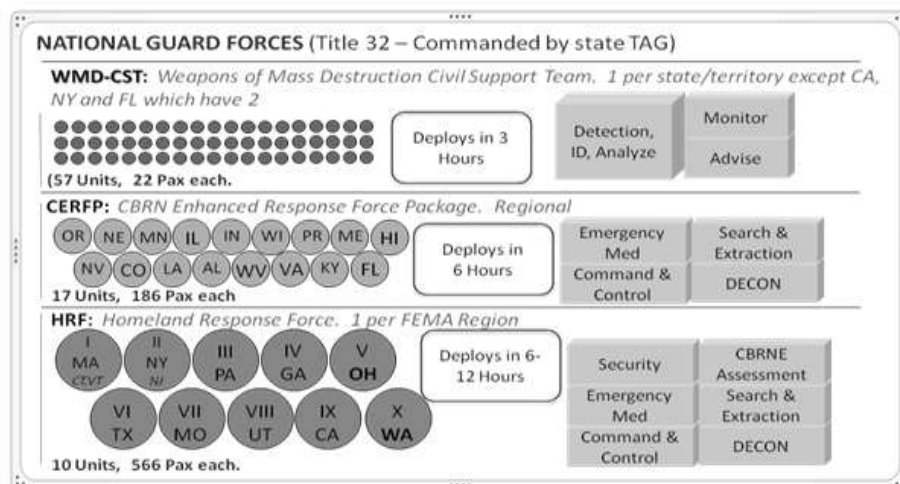


Figure 4. The Title 32 CBRN Response Enterprise<sup>33</sup>

The first members of Title 32 response are the Weapons of Mass Destruction Civil Support Teams (WMD-CSTs), or CSTs. There are 57 CSTs, one per state and U.S. territory. Twenty-two full-time Title 32 Active Guard/Reserve (AGR) Soldiers man

each CST. CSTs are available for deployment within three hours of notification. The mission of these teams is to support civil authorities at a domestic [CBRN] incident site by identifying [CBRN] agents and substances, assessing current and projected consequences, advising on response measures, and assisting with appropriate requests for additional support.<sup>34</sup>

The second asset in the Title 32 response enterprise is the CBRN Enhanced Response Force Package (CERFP). There are 17 geographically dispersed National Guard CERFPs, comprised of approximately 186 personnel, of which 97% are traditional part-time National Guardsman. CERFP capabilities include search and extraction, casualty decontamination, and emergency triage and treatment. CERFPs are ready to deploy within 6 hrs of notification.<sup>35</sup>

The top-level organization in the Title 32 CRE response is the Homeland Response Force (HRF). There are 10 HRFs, one per Federal emergency management Agency (FEMA) region. HRF manning consists of up to 25% full-time Guardsmen with the balance of positions being filled by traditional Guardsman. The HRF's mission is to conduct casualty search and extraction, decontamination, medical triage, security, and command and control in the vicinity of a CBRN incident in order to save lives and mitigate human suffering in support of civil authorities.<sup>36</sup> The HRF is a regional asset. In addition to the capabilities provided by its supported CST and CERFP elements, the HRF structure includes a brigade-level command and control section and a security element. HRFs are available for deployment within 6-12 hours of notification. HRF units may command and control multiple CST's and CERFPs. Figure 5 illustrates the structure of a deployed HRF with assigned non-organic units.

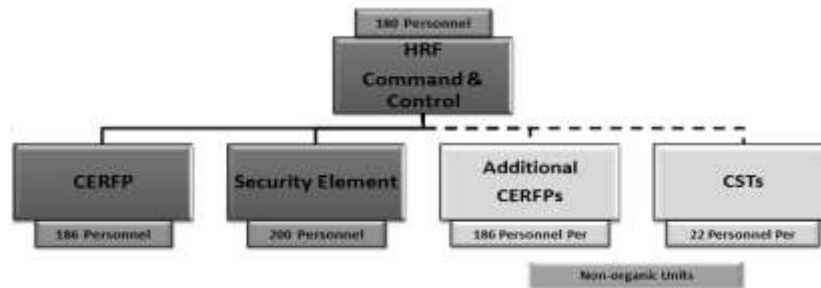


Figure 5. Typical Homeland Response Force (HRF) Organization.<sup>37</sup>

The Title 32 response enterprise is scalable, responsive and flexible. In the wake of a CBRN event, the Governor of the effected state not only has access to his own state’s National Guard assets; he or she also has the ability to reach across state boundaries for additional Title 32 response forces. The process that enables this inter-state cooperation is the Emergency Management Assistance Compact (EMAC) system. The EMAC is a congressionally approved interstate mutual aid compact that provides a legal structure by which states affected by an emergency may request assistance from other states.<sup>38</sup> Following a state disaster declaration, a Governor can rapidly draw upon Title 32 forces from several states to respond to larger scale CBRN incidents.

In addition to the dedicated CBRN response forces described above, general-purpose National Guard follow-on forces are available regionally to respond to CBRN disaster scenes. These forces represent significant additional capacity to augment dedicated Title 32 CRE forces, and may lessen the need for Title 10 response to an incident.

### Title 10 Federal Response

The Title 10 CBRN response enterprise, under the command of US Army North’s Joint Task Force – Civil Support (JTF-CS), is comprised of a Defense CBRN Response

Force (DCRF) and two Command and Control CBRN Response Elements (C2CREs). Figure 6 illustrates the federal response enterprise.

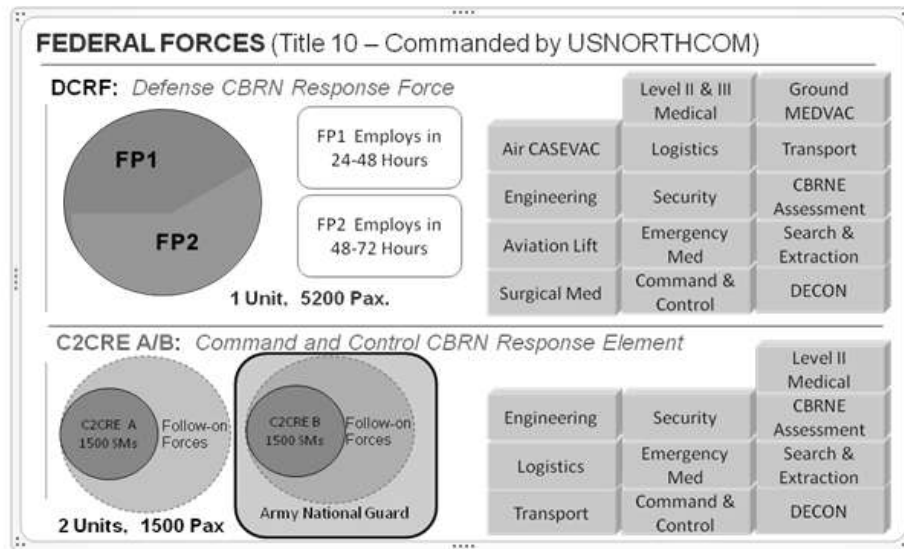


Figure 6. Title 10 CBRN Response Enterprise (CRE) <sup>39</sup>

The DCRF is a 5,200 person rapid response force composed of two force packages. The first force package is comprised of 2,100 personnel prepared to deploy within 24 hours. The second force package consists of 3,100 personnel and is prepared to deploy within 48 hours of notification.<sup>40</sup> The DCRFs primary role when responding to a CBRNE event is to augment the [CBRN] consequence management efforts of civil responders by providing complementary and reinforcing capabilities when the effects of the event exceed state civilian and [National Guard] capabilities.<sup>41</sup> Capabilities include assessment, search and extraction, casualty decontamination, emergency medical, Level III medical, engineering, logistics, Command and Control (C2), aviation lift, medical evacuation (MEDEVAC), and transportation.<sup>42</sup> Included in the DCRF is the Marine Corps' Chemical Biological Incident Response Force. The CBIRF consists of 430 Marines and Sailors, and augments DCRF life saving capabilities.

In addition to the DCRF, there are two other dedicated Title 10 CRE assets; Command and Control CBRN Response Element A and B (C2CRE-A/B). The Federally employed C2CREs include approximately 1500 personnel, sourced from active and reserve components. C2CREs are ready to deploy within 96 hrs of notification.<sup>43</sup> C2CRE A and B provide command and control and communications capabilities for Title10 follow-on forces.<sup>44</sup> C2CREs also include dedicated search and extraction, medical and decontamination elements.

It is important to note that the Title 32 and Title 10 CBRN response enterprises were developed in a somewhat ad hoc and non-centralized fashion over a period of approximately 15 years. The Marine Corps developed the Chemical Biological Incident Response Force (CBIRF) in 1996. The National Guard began building CSTs in 1999. DOD stood up USNORTHCOM in 2002 in direct response to 9-11. The National Guard developed CERFPs in 2005. In the years immediately following Hurricane Katrina, there was pressure to increase Title 10 response capability and development began for the construction of three CBRNE Consequence Management Response Forces (CCMRFs). The first CCMRF became the DCRF in 2010. C2CRE A and C2CRE B replaced the second existing and third planned CCMRFs. The National Guard began to build HRF's in 2010. The disjointed means in which the CBRN response enterprise was constructed bears consideration when determining if the resultant enterprise is properly sized and free from excessive redundancy.

#### CBRN Risk to the Homeland

The DOD CBRN response enterprise is large and very capable. The enterprise is also expensive to maintain and is staffed at the expense of the shrinking fighting force.

An enterprise of this magnitude and cost should be warranted by a mandate stemming from basic risk management principles. Risk management theory holds that any hazard's level of risk is determined as a function of the likelihood of the hazard occurring and the resultant severity of the hazard's consequences. The U.S. Government must examine the likelihood and severity of future CBRN attack scenarios to determine the proper sizing of the DOD's response function.

Unfortunately, assessing risk associated with potential CBRN attack is not a simple task, and the assessment of this risk varies considerably between different groups of experts. According to Gregory Koblenz of George Mason University, there are three major schools of thought on the risk of CBRN terrorism: optimists, pessimists, and pragmatists. According to the optimists, CBRN terrorism is a "very low probability, very low consequence" threat.<sup>45</sup> Pessimists believe that CBRN terrorism is a "low (but growing) probability, high consequence" threat.<sup>46</sup> According to pragmatists, CBRN terrorism is a "low probability, low consequence" threat.<sup>47</sup>

Further illustrating the difficulty in accurately assessing risk; in 2009, JASON, an independent scientific advisory group that provides consulting services to the U.S. government on defense science and technology issues, was asked to evaluate current and proposed models for anticipating rare, catastrophic events such as CBRN terrorism. Their conclusion was that "it is simply not possible to validate (evaluate) predictive models of rare events that have not occurred, and unvalidated models cannot be relied upon."<sup>48</sup>

In light of the wide disparity of expert opinion concerning this issue and the lack of quantitative evidence available, it is certainly beyond the scope of this paper to



attempt determine the actual level of risk associated with CBRN attack in the Homeland. It is though within this paper's scope of to assess the reasonableness of the CRE's current response requirement mandated by CJSI 3125.01C. As stated earlier, this mandate specifies the need to respond to three nearly simultaneous, geographically dispersed, significant domestic CBRN incidents, or one catastrophic CBRN incident (nuclear detonation).

Historical analysis of past CBRN attacks should be at least part of the calculation of the likelihood of future CBRN attack. Over the past 35+ years, there have only been a total of three significant CBRN terrorist incidents worldwide: the Rajneeshee cult salmonella incident in 1984, the Aum Shinrikyo Tokyo incident in 1995, and the Amerithrax incident in 2001. Only one of these was a mass casualty incident.<sup>49</sup>

Expanding the historical precedent argument against the likelihood of a CBRN attack in the Homeland is the absence in recent history of CBRN being used as a method of terrorist attack anywhere in the world. The National Counterterrorism Center releases an annual unclassified report that breaks out the statistics of global terrorism incidents. In 2010, there were more than 11,500 terrorist attacks, affecting about 50,000 victims including almost 13,200 deaths. None were caused by CBRN hazards.<sup>50</sup> Indeed, in the tens of thousands of terrorist attacks in the last decade, none have utilized CBRN as a method.

There has never been a CBRN incident in the Homeland requiring DOD CBRN response, and the use of CBRN in terrorist attacks worldwide is nearly nonexistent. In view of these facts, it seems extremely unlikely that three domestic CBRN attacks would happen at the same time.

Shifting to the factor of severity, there is again little historic precedence of significant risk. The most severe consequence of the above-mentioned CBRN terrorist incidents was the Tokyo subway nerve gas attack, which killed 13 people and injured 5000. This is the only terrorist CBRN incident in recent world-wide history that would have warranted a significant DOD CBRN response.

A terrorist nuclear detonation in the Homeland (the aforementioned “catastrophic CBRN incident”) represents the highest consequence CBRN attack, but holds the lowest probability of occurrence. Although the severity of a nuclear blast is not argued, the likelihood of such an attack is debated. Matthew Bunn from Harvard University's John F. Kennedy School of Government calculates that there is a 3% chance of nuclear terrorism every year.<sup>51</sup> On the other hand, John Mueller, a Professor of Political Science at Ohio State University, calculates the odds of a successful nuclear terrorist attack at between one in a million and one in three billion.<sup>52</sup> Historically, there has of course never been a terrorist nuclear detonation, nor has there ever been one attempted within public knowledge. According to Albert Mauroni, a senior policy analyst with the Air Force, “We have no compelling evidence that any nation has provided a terrorist group with chemical or biological weapons – why on earth would they provide a terrorist group with nuclear weapons? It doesn't make sense.”<sup>53</sup>

Is the risk of CBRN attack growing? The number of states possessing or developing NBC weapons has gone down, not up. In the mid-1990s, defense officials believed that there were between 20-25 nations that had or might be developing unconventional weapons. There are substantially fewer nations with offensive WMD programs today, in part due to the success of nonproliferation and cooperative threat

reduction efforts.<sup>54</sup> The overall nation-state WMD threat is not growing, it is in fact shrinking. Terrorists are not an existential threat to the nation, given their limited capability to develop even crude CB weapons.<sup>55</sup> [Office of the Director of National Intelligence's] 2011 report states that "several terrorist groups... probably remain interested in [CBRN] capabilities, but not necessarily in all four of those capabilities. A number of the [foreign terrorist groups] have previously expressed interest in one or more of these capabilities, mostly focusing on low-level chemicals and toxins."<sup>56</sup>

The requirement for DOD's CBRN response enterprise to be able to respond to three nearly simultaneous, geographically dispersed, significant domestic CBRN incidents, or one catastrophic CBRN incident (nuclear detonation) is probably not realistic. Historical precedence certainly does not support this requirement and it is arguable that this level of preparedness is necessary when forward risk is assessed and fiscal constraints are considered.

### Conclusion and Recommendations

A realistic assessment of risk does not justify maintaining a DOD enterprise to respond to the "three nearly simultaneous CBRN incidents / one catastrophic CBRN incident" level of capability that is currently required by the Chairman's mandate. Terrorist have not used CBRN as a method of attack anywhere in the world in the past decade; a scenario involving three simultaneously CBRN attacks in the Homeland is extremely remote. There has never been a catastrophic nuclear event, and one occurring in the foreseeable future is very unlikely.

If there is a CBRN attack in the Homeland, civil response capability at the local and state levels is far more robust than it was when DOD's enterprise was developed.

When considering the proper size of the military response construct, DOD should not ignore the current level of civil response capability.

The U.S. Government should critically reexamine the size and composition of the DOD CBRN response enterprise. The process should begin with the Department of Homeland Security assessing CBRN risk to the Homeland and the current capabilities of the civil enterprise to respond to CBRN attack. DHS should then inform DOD of the specific military response capability needed to support the civil response enterprise. Once this military response requirement is determined, DOD should restructure the CRE from the most appropriate forces.

DOD developed the CBRN response enterprise over a long period of time in a non-centralized manner. As a result, Title 10 and Title 32 response organizations when viewed in aggregate hold significant redundancy. Title 32 forces are better suited to consequence management in the Homeland than their federal counterparts. Title 32 forces are widely distributed across the Homeland and are quick to respond. They are familiar with local and state emergency plans, resources and capabilities and have relationships with response organizations within their respective States. The Posse Comitatus Act does not limit Title 32 forces from performing security and law enforcement functions. The EMAC process enables regional response from multiple states.

Title 32 response forces cost significantly less to maintain than their active duty counterparts. Nearly three-quarters of service members in the Title 32 response enterprise are traditional part-time Guardsmen. National Guard service members also generally remain in CBRN response units far longer than do their active duty

counterparts. Lower turnover rates in National Guard response organizations translate to far lower cost, especially concerning training and certification expense for proprietary tasking such as search and rescue.

General-purpose Title 32 follow-on forces add to the breadth and depth of the dedicated Title 32 CBRN response enterprise. These forces, not represented in the Figure 3, bring significant capability beyond what CSTs, CERFPs and HRFs can deliver. These forces are available regionally, are familiar with the area of operations and would seamlessly fall under the command and control of the Title 32 CBRN command structure on-scene.

To illustrate the current magnitude of Title 32 enterprise, the following is a notional scenario representing a response to a terrorist chemical attack in the city of Indianapolis:

While civil responders deploy to the scene, the Governor of Indiana mobilizes his state's CST to assess the situation. The CST responds to the scene and confirms widespread persistent chemical contamination and significant casualties. The Governor then orders activation of his state's CERFP to provide initial casualty decontamination and emergency triage and medical treatment. The Governor simultaneously requests additional Title 32 CBRN response assets from neighboring states through National Guard Bureau utilizing the EMAC process. In response, Ohio responds with its HRF and CST, and Illinois and Kentucky mobilize their CERFPs to the scene. The HRF commander determines MEDEVAC and additional security support is required so an air MEDEVAC detachment deploys from Ohio and Indiana deploys three military police companies from armories local to the disaster area. Within 24 hours, there are approximately 1,500 Title 32 responders on-scene under HRF control supporting the civil response.

The above scenario illustrates the significant dedicated Title 32 response capability that is currently available across the Homeland to supplement the civil response enterprise. The scenario also demonstrates the additional capacity

represented by follow-on Title 32 forces that are readily available to assist dedicated CRE forces.

It should be apparent that maintaining, training and equipping a dedicated 8,200 service member Title 10 response enterprise to support existing civil and Title 32 response capability is not reasonable. DOD should reduce the current size, scope and tasking of the Title 10 CBRN response enterprise in-line with actual need. This reduction complements the existing mandate to reduce active service forces levels called for in DOD budget plans. Reducing excessive response requirement also alleviates tasking on shrinking active forces that are already overcommitted.

DOD could reduce the size, scope and cost of the Title 10 response enterprise in several ways. The following are suggestions:

1. Reduce training and certification expenses in the DCRF. The DCRF should assign Directed Mission Essential Task List (DMETL) requirements to its allocated general-purpose forces and reduce their required participation in ongoing training and certification events with the DCRF. The DCRF should reduce the search and rescue certification requirement for its forces from the technical level to the operational level since this capability already exists in the civil sector. These two changes would significantly reduce the ongoing cost of maintaining the DCRF.
2. Eliminate C2CRE-A. C2CRE-A is a mixture of active and Army Reserve forces. If needed, USNORTHCOM could deploy reserve forces formerly allocated to C2CRE-A to an incident scene and place these forces under the command of the on-scene dual-status commander.

3. Repurpose C2CRE-B. C2CRE-B is comprised of a Title 32 National Guard chemical brigade that USNORTHCOM would federalize as needed in the event of a CBRN incident. This brigade should remain a Title 32 asset and be available for CBRN response through an “EMAC plus” process.<sup>57</sup> C2CRE-B’s responsibility to command and control follow-on Title 10 forces could be assumed by either US Army North’s Joint Task Force – Civil Support or the on-scene dual-status commander.
4. If C2CREs are maintained, reduce or remove life-saving function requirements. Resourcing life-saving functions in organizations that don’t arrive on-scene until 96 hours after an incident makes little sense, as the first 96 hours post-incident are the most crucial for life-saving.<sup>58</sup>

Figure 7 below reflects an updated model of the CRE. This figure recognizes the inclusion of non-dedicated Title 32 follow-on forces and unspecified reductions in the dedicated Title 10 response enterprise.

In addition to streamlining the DOD CBRN response enterprise, the US Government should consider that the enterprise brings value beyond its CBRN consequence management mission. Utilizing CRE force structure as an asset for all-hazards response adds value to the enterprise. Leveraging the CRE to aid in response to natural disasters adds value to the taxpayer dollars spent in maintaining the enterprise.

Rescaling the CBRN response enterprise increases both operational and political risk. In a world of constrained resources, however, choices must be made and much potential harm must be left unaddressed. Deciding how much of our societal

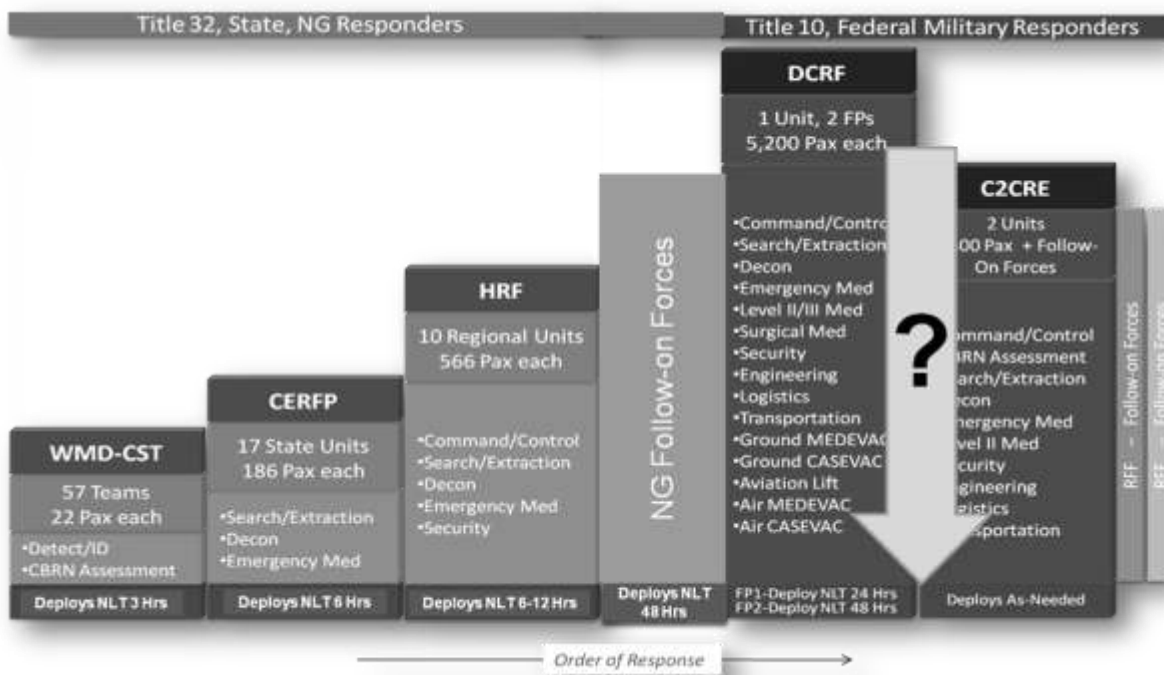


Figure 7. Proposed CRE Structure.

resources to dedicate to homeland security and how to allocate those resources across the myriad of homeland security domains is an exceptionally difficult public policy problem.<sup>59</sup>

An objective, holistic reassessment of the DOD CBRN response enterprise is warranted. The Department of Defense must tailor the CRE to the current environment. To do so it must realistically assess risk and consider existing civil response capability. The resulting enterprise will be less expensive to the Nation and will not unnecessarily overburden the Nation's forces.

#### Endnotes

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<sup>2</sup> Office of the President of the United States, *2010 National Security Strategy*, May 2010, 34.



<sup>3</sup> Stephen Daggett and Pat Towell, *FY2013 Defense Budget Request: Overview and Context*, Congressional Research Service, 20 Apr 2012, 7.

<sup>4</sup> US Army North, 2012 Army Posture Statement, *Chemical, Biological, Radiological and Nuclear (CBRN) Response Enterprise*, [https://secureweb2.hqda.pentagon.mil/VDAS\\_ArmyPostureStatement/2012/InformationPapers/ViewPaper.aspx?id=188](https://secureweb2.hqda.pentagon.mil/VDAS_ArmyPostureStatement/2012/InformationPapers/ViewPaper.aspx?id=188), 6 Feb 2012, accessed 28 October 2012.

<sup>5</sup> United States Northern Command, *CONPLAN 3500-11, CBRNE Response*, 17 August 2011, vi.

<sup>6</sup> Department of Defense, *National Defense Strategy*, June 2012, 18.

<sup>7</sup> US Department of Homeland Security, *National Preparedness Report*, 30 March 2012, i.

<sup>8</sup> Barrack Obama, *Presidential Policy Directive 8: National Preparedness / PPD-8*, March 30, 2011, 2.

<sup>9</sup> *Ibid.*, 2.

<sup>10</sup> Department of Homeland Security, *National Preparedness Guidelines*, <http://www.dhs.gov/national-preparedness-guidelines>, accessed 8 October 2012.

<sup>11</sup> CJCSI 3125.01C, *Defense Response to Chemical, Biological, Radiological, and Nuclear (CBRN) Incidents in the Homeland*, 4 June 2012, 1.

<sup>12</sup> *Ibid.*

<sup>13</sup> *Ibid.*

<sup>14</sup> Department of Homeland Security, *National Response Framework*, January 2008, 1.

<sup>15</sup> *Ibid.*, 5.

<sup>16</sup> *Ibid.*, 6.

<sup>17</sup> *Ibid.*, 6.

<sup>18</sup> United States Northern Command, *CONPLAN 3500-11, CBRNE Response*, 17 August 2011, vi.

<sup>19</sup> US Department of Homeland Defense, *2010 Quadrennial Defense Review (QDR)*, 6 February 2006, 19.

<sup>20</sup> FEMA, *National Preparedness Report Fact Sheet*, 2 May 2012.

<sup>21</sup> US Department of Homeland Security, *National Preparedness Report*, March 30, 2012, ii.

<sup>22</sup> *Ibid.*, iii.

<sup>23</sup> *Ibid.*, 33.

<sup>24</sup> Ibid., 38.

<sup>25</sup> Ibid., 38.

<sup>26</sup> Ibid., 33.

<sup>27</sup> Ibid., 38.

<sup>28</sup> Al Mauroni, *Facing our Fears, Managing the Threat*, Secretary of the Air Force Office of Public Affairs case number 2012-517, 4.

<sup>29</sup> Matthew Cooper, "Homeland Response Force (HRF) 101", briefing slides, 20 November 2011, slide 13.

<sup>30</sup> CJCSI3125.01C, *Defense Response to Chemical, Biological, Radiological, and Nuclear (CBRN) Incidents In The Homeland*, D--2. 4 June 2012.

<sup>31</sup> Joint Publication 3-41, *Chemical, Biological, Radiological, and Nuclear Consequence Management*, 21 June 2012, xi.

<sup>32</sup> National Guard Bureau, *Army National Guard Strategic Imperatives*.

<sup>33</sup> Heinrich Reyes, "CBRN Response Enterprise", briefing slides, 20 June 2012, slide 39.

<sup>34</sup> Ibid., slide 39.

<sup>35</sup> US Army North, 2012 Army Posture Statement, *Chemical, Biological, Radiological and Nuclear (CBRN) Response Enterprise*, [https://secureweb2.hqda.pentagon.mil/VDAS\\_ArmyPostureStatement/2012/InformationPapers/ViewPaper.aspx?id=188](https://secureweb2.hqda.pentagon.mil/VDAS_ArmyPostureStatement/2012/InformationPapers/ViewPaper.aspx?id=188), 6 Feb 2012, accessed 28 October 2012.

<sup>36</sup> Heinrich Reyes, "CBRN Response Enterprise", briefing slides, 20 June 2012, slide 2.

<sup>37</sup> Aaron Barrett, "Homeland Response Force - Ohio", briefing slides, slide 13.

<sup>38</sup> Departments of the Army and the Air Force, National Guard Bureau, *National Guard Domestic Operations*, National Guard Regulation 500-1 (Arlington, VA: National Guard Bureau, 13 June 2008), 8.

<sup>39</sup> Heinrich Reyes, "CBRN Response Enterprise", briefing slides, 20 June 2012, slide 40.

<sup>40</sup> 2010 Army Posture Statement, *Chemical, Biological, Radiological, Nuclear and High Yield Explosive (CBRNE) Consequence Management Response Force (CCMRF)*, [https://secureweb2.hqda.pentagon.mil/VDAS\\_ArmyPostureStatement/2011/information\\_papers/PostedDocument.asp?id=261](https://secureweb2.hqda.pentagon.mil/VDAS_ArmyPostureStatement/2011/information_papers/PostedDocument.asp?id=261), accessed 28 October 2012.

<sup>41</sup> Nicholas Dall, *The Department Of Defense Chemical, Biological, Nuclear And High Yield Explosive Response Enterprise: Have We Learned The Lessons To Ensure An Effective Response?*, 19, January 2011.

<sup>42</sup> US Army North, 2012 Army Posture Statement, *Chemical, Biological, Radiological and Nuclear (CBRN) Response Enterprise*, [https://secureweb2.hqda.pentagon.mil/VDAS\\_ArmyPostureStatement/2012/InformationPapers/ViewPaper.aspx?id=188](https://secureweb2.hqda.pentagon.mil/VDAS_ArmyPostureStatement/2012/InformationPapers/ViewPaper.aspx?id=188), 6 Feb 2012, accessed 28 October 2012.

<sup>43</sup> Ibid.

<sup>44</sup> Heinrich Reyes, "CBRN Response Enterprise", briefing slides, 20 June 2012, slide 27.

<sup>45</sup> Examples of optimists include Brian Michael Jenkins, Ehud Spriznak, Milton Leitenberg, John Mueller, and Robin Frost.

<sup>46</sup> Examples of pessimists include Richard Falkenrath, Ashton Carter, Richard Danzig, Tara O'Toole, and Graham Allison.

<sup>47</sup> Examples of pragmatists include Jessica Stern, John Parachini, Jonathan Tucker, Jean Pascal Zanders, the Gilmore Commission, and Bruce Hoffman.

<sup>48</sup> JASON, *Rare Events* (McLean, VA: MITRE Corporation, 2007), 7.

<sup>49</sup> Al Mauroni, *Facing our Fears, Managing the Threat*, Secretary of the Air Force Office of Public Affairs case number 2012-517, 3.

<sup>50</sup> Al Mauroni, "Seeking a Strategy to Counter Weapons of Mass Destruction", *Small Wars Journal*, 22 May 2012, 3.

<sup>51</sup> Matthew Bunn, "A Mathematical Model of the Risk of Nuclear Terrorism," *Annals of the Academy of Political and Social Science*, 607, no. 1 (2006): 103–120.

<sup>52</sup> John Mueller, "The Atomic Terrorist: Assessing the Likelihood," prepared for presentation at the Program on International Security Policy, University of Chicago, <http://polisci.osu.edu/faculty/jmueller/APSACHGO.PDF>, 15 January 2008, accessed 1 November 2012.

<sup>53</sup> Albert J. Mauroni, *Homeland Insecurity: Thinking About CBRN Terrorism*, Homeland Security Affairs, Volume Vi, No. 3 (September 2010) [www.hsaj.org](http://www.hsaj.org), 12.

<sup>54</sup> Al Mauroni, "Seeking a Strategy to Counter Weapons of Mass Destruction", *Small Wars Journal*, 22 May 2012, 2.

<sup>55</sup> Ibid., 3.

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<sup>57</sup> From discussions with COL Collin Fortier, former Deputy Chief of Staff, C2CRE-A, U.S. Army North, 15 February 2013.

<sup>58</sup> From email correspondence with Heinrich Reyes, Combating WMD Division Chief, National Guard Bureau, 4 February 2013.

<sup>59</sup> Joe Eyerma and David H. Schanzer, *Improving Strategic Risk Management at the Department of Homeland Security*, 9.